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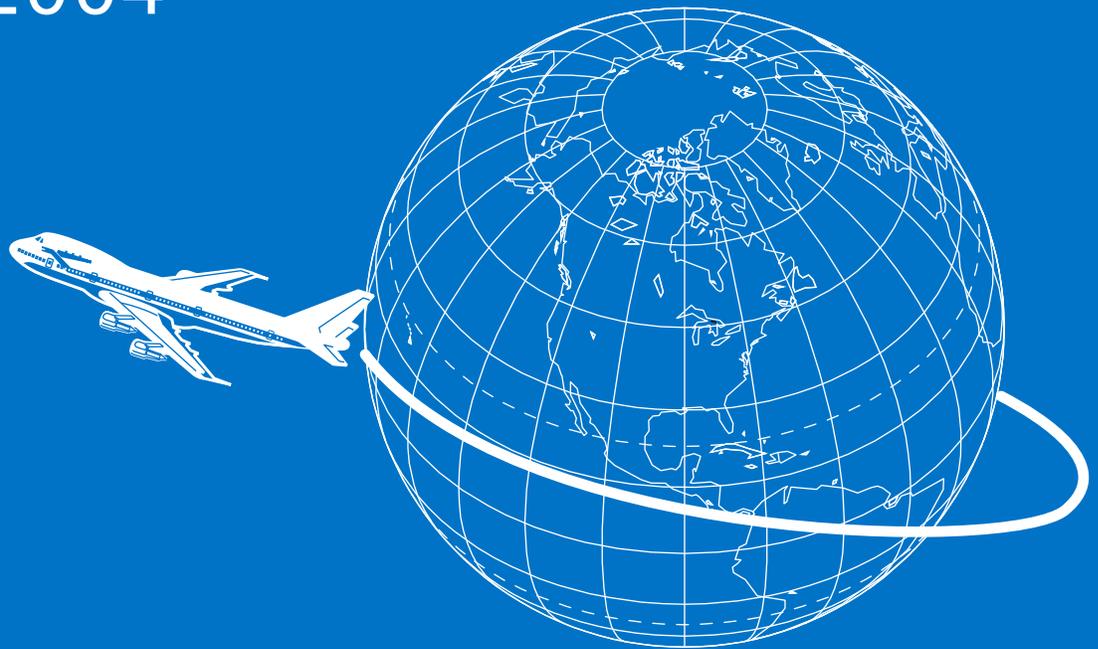


Documentation for the session  
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# Annual Report of the Council

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2004



International Civil Aviation Organization

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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 2004 prepared in compliance with Article 54(a) of the Convention on International Civil Aviation. It constitutes documentation for the next ordinary 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.*

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*Sixty years ago, on 7 December 1944, ICAO was created with the signing of the Convention on International Civil Aviation. Since that time, it has been an effective forum for global cooperation among its Contracting States and members of the world aviation community in enhancing the safety, security and efficiency of our skies and airspace around airports.*

*From a fledgling industry to an important player in the world economy, air transport is today a vital part of our daily lives. It makes it possible for us as tourists or business people to safely and quickly reach practically any place on the face of the earth and provides us with many of the goods and services that we use everyday in homes and offices.*

*As we enter a new chapter in the Organization's history, we confidently set our sights on a challenging future, determined to continue striving for optimum safety and security; the continued progressive, worldwide liberalization of air transport; a globally interoperable, harmonized and seamless air traffic management system; maximum compatibility between the safe and orderly development of civil aviation and the quality of the environment; and the further development of a unified, global legal framework.*

*Yes, the direction has been set. Our goals are clear. Global cooperation remains the key to meeting all of these challenges, as it has guided us for the past 60 years.*

Assad Kotaite  
President of the Council

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## GLOSSARY

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- ACAC.** Arab Civil Aviation Commission  
**ACC.** Area Control Centre  
**ACI.** Airports Council International  
**ACS.** Association of Caribbean States  
**ADB.** Asian Development Bank  
**ADREP.** Accident/Incident Data Reporting  
**ADS.** Automatic dependent surveillance  
**ADS-B.** Automatic dependent surveillance-broadcast  
**ADS-C.** Automatic dependent surveillance-contract  
**AECI.** Spanish Agency for International Cooperation  
**AENA.** Airports and Air Navigation Authority  
**AEROCOM.** Aeronautical communications  
**AEROMET.** Aeronautical meteorological  
**AFCAC.** African Civil Aviation Commission  
**AFCAP.** Air Force Contract Augmentation Programme  
**AFDD.** Audit Findings and Differences Database  
**AFI.** Africa-Indian Ocean  
**AFIS.** Aerodrome flight information service  
**AFRAA.** African Airlines Association  
**AFS.** Aeronautical fixed service  
**AFTN.** Aeronautical Fixed Telecommunication Network  
**AGL.** Above-ground level  
**AIDC.** ATS interfacility data communications  
**AIS.** Aeronautical information services  
**AIT.** Airport International of Tocumen  
**AJAB.** Advisory Joint Appeals Board  
**ALAR.** Approach and landing accident reduction  
**AMHS.** ATS message handling system  
**ANB.** Air Navigation Bureau  
**ANP.** Air Navigation Plan  
**AOSC.** Administrative and Operational Services Cost  
**AOSCF.** Administrative and Operational Services Cost Fund  
**AOT.** Airports of Thailand  
**APHMWG.** Air Passenger Health Multi-Disciplinary Working Group  
**ASECNA.** Agency for Air Navigation Safety in Africa and Madagascar  
**AsMA.** Aerospace Medical Association  
**ASTCs.** Aviation Security Training Centres  
**ATAG.** Air Transport Action Group  
**ATI.** Air Transport Intelligence  
**ATM.** Air traffic management  
**ATN.** Aeronautical telecommunication network  
**ATNS.** Air Traffic Navigation Services  
**ATO.** Air Transportation Office  
**ATS.** Air traffic services  
**AU.** African Union  
**AVSEC.** Aviation security  
**CAA.** Civil Aviation Administration  
**CAA.** Civil Aviation Authority  
**CAASL.** Civil Aviation Authority of Sri Lanka  
**CACAS.** Civil Aviation Caretaker Authority of Somalia  
**CAeM.** Commission for Aeronautical Meteorology  
**CAEP.** Committee on Aviation Environmental Protection  
**CAMP.** Civil Aviation Master Plan  
**CANSO.** Civil Air Navigation Services Organization  
**CAPS.** Civil Aviation Purchasing Service  
**CAR.** Caribbean  
**CARO.** Civil Aviation Regulatory Office  
**CARSAMMA.** CAR/SAM Monitoring Agency  
**CASC.** Civil Aviation Safety Centre  
**CASP-AP.** Cooperative Aviation Security Programme – Asia/Pacific Region  
**CASPs.** Cooperative Aviation Security Programmes  
**CAT.** Category  
**CBS.** Commission for Basic Systems  
**CEATS.** Central European Air Traffic Services  
**CEB.** Chief Executives Board  
**CFACC.** Combined Forces Air Component Commander  
**CFR.** Crash, fire and rescue  
**CGNA.** Air Navigation Management Centre  
**CIENAM.** International Centre for Aeronautical Training of Mexico  
**CIS.** Commonwealth of Independent States  
**CNS/ATM.** Communications, Navigation, Surveillance/Air Traffic Management  
**COCESNA.** Central American Corporation for Air Navigation Services  
**COMESA.** Common Market for Eastern and Southern Africa  
**COSCAP.** Cooperative Development of Operational Safety and Continuing Airworthiness Project  
**COSPAS.** Space System for Search of Vessels in Distress  
**CPDLC.** Controller-pilot data link communications  
**CTA.** Chief technical adviser  
**CVOR.** Conventional VHF omnidirectional range  
**DAC.** Civil Aviation Directorate  
**DAC.** Department of Civil Aviation  
**DAGMAR.** Database of aeronautical agreements and arrangements  
**DECEA.** Department of Air Space Control  
**DGCA.** Directorate General of Civil Aviation

- DINAC.** Directorate of Civil Aeronautics  
**DME.** Distance measuring equipment  
**DMNB.** 2,3-Dimethyl-2,3-dinitrobutane  
**DPKO.** Department of Peacekeeping Operations  
**DVOR.** Doppler VHF omnidirectional radio range  
**EAAP.** European Association for Aviation – Psychology  
**EAC.** East African Community  
**EANPG.** European Air Navigation Planning Group  
**EASA.** European Aviation Safety Agency  
**EC.** European Community  
**ECA.** Economic Commission for Africa  
**ECAC.** European Civil Aviation Conference  
**ECCAIRS.** European Co-ordination Centre for Aviation Incident Reporting System  
**ECOWAS.** Economic Community of West African States  
**EDEN.** Electronic Documents and Enquiry Network  
**EGNOS.** European Geostationary Navigation Overlay Service  
**EIB.** European Investment Bank  
**ESCAP.** Economic and Social Commission for Asia and the Pacific  
**ETOPS.** Extended range operations by twin-engined aeroplanes  
**EUR.** European  
**EUROCONTROL.** European Organisation for the Safety of Air Navigation  
**FAA.** Federal Aviation Administration  
**FAI.** Fédération aéronautique internationale  
**FANS.** Future air navigation systems  
**FASID.** Facilities and Services Implementation Documents  
**FIRs.** Flight information regions  
**FIS.** Flight information services  
**GAGAN.** GPS and GEO Augmented Navigation  
**GASP.** Global Aviation Safety Plan  
**GATS.** General Agreement on Trade in Services  
**GCAA.** General Civil Aviation Authority  
**GEPEJTA.** Group of Experts on Policies, Economics and Legal Matters in Air Transport  
**GNSS.** Global navigation satellite system  
**GRAS.** Ground-based regional augmentation system  
**GREPECAS.** CAR/SAM Regional Planning and Implementation Group  
**HCAA.** Hellenic Civil Aviation Authority  
**HF.** High frequency  
**HFDL.** High frequency data link  
**HIAL.** Hyderabad International Airport Limited  
**HLCM.** High-Level Committee on Management  
**HLCP.** High-Level Committee on Programmes  
**IAASM.** International Academy of Aviation and Space Medicine  
**IAC.** Institute of Civil Aviation  
**IAC.** Interstate Aviation Committee  
**IAEA.** International Atomic Energy Agency  
**IAOPA.** International Council of Aircraft Owner and Pilot Associations  
**IATA.** International Air Transport Association  
**IBAC.** International Business Aviation Council  
**IBIS.** ICAO Bird Strike Information System  
**ICC.** International Chamber of Commerce  
**ICPO-INTERPOL.** International Criminal Police Organization  
**IETC.** International Explosives Technical Commission  
**IFALPA.** International Federation of Air Line Pilots' Associations  
**IFATCA.** International Federation of Air Traffic Controllers' Associations  
**IFATSEA.** International Federation of Air Traffic Safety Electronics Association  
**IFFAS.** International Financial Facility for Aviation Safety  
**IFSO.** In-flight security officers  
**IHR.** International Health Regulations  
**ILO.** International Labour Office  
**ILS.** Instrument landing system  
**IMO.** International Maritime Organization  
**IMSO.** International Mobile Satellite Organization  
**INAC.** Instituto Nacional de Aviación Civil  
**INFRAERO.** Technical Assistance Project to the Brazilian Company of Airport Infrastructure  
**IPCC.** Intergovernmental Panel on Climate Change  
**IPV.** Institute of Flight Protection  
**ISASI.** International Society of Air Safety Investigators  
**ISBN.** International Standard Book Number  
**ISDB.** Integrated statistical database  
**ISO.** International Organization for Standardization  
**ITU.** International Telecommunication Union  
**JAA.** Joint Aviation Authorities  
**JAR.** Joint Aviation Requirements  
**KFOR.** International Security Presence in Kosovo  
**LACAC.** Latin American Civil Aviation Commission  
**LARs.** Latin American Aviation Regulations  
**LAS.** League of Arab States  
**LEB.** Legal Bureau  
**MACL.** Maldives Airports Company Ltd.  
**MANPADS.** Man-portable defence systems  
**MECMA.** Middle East Central Monitoring Agency  
**MID.** Middle East  
**MNPS.** Minimum navigation performance specifications  
**MoC.** Memorandum of Cooperation  
**MOCAT.** Ministry of Civil Aviation and Tourism  
**MONUC.** Mission de l'Organisation des Nations Unies en République démocratique du Congo  
**MSAs.** Management Service Agreements  
**MSAS.** MTSAT satellite-based augmentation system  
**MTSAT.** Multi-functional transport satellite  
**NAFISAT.** North eastern African VSAT

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<b>NAIA.</b> Ninoy Aquino International Airport	<b>SARSAT.</b> Search and Rescue Satellite-Aided Tracking
<b>NARAST.</b> North Asia Regional Aviation Safety Team	<b>SATCC.</b> Southern African Transport and Communications Commission
<b>NAT.</b> North Atlantic	<b>SATCOM.</b> Satellite communication
<b>NAT SPG.</b> North Atlantic Systems Planning Group	<b>SBAS.</b> Satellite-based augmentation system
<b>NAVAIDS.</b> Navigation aids	<b>SBSTA.</b> Subsidiary Body for Scientific and Technological Advice
<b>NCC.</b> Node Control Centre	<b>SEARAST.</b> Southeast Asia Regional Aviation Safety Team
<b>NDB.</b> Non-directional beacon	<b>SINTAC.</b> Integrated Information Systems of Civil Aviation
<b>NDIA.</b> New Doha International Airport	<b>SISNOTAM.</b> Implementation of the Aeronautical Information System
<b>NLAs.</b> New larger aeroplanes	<b>SMCG.</b> Safety Management Coordination Group
<b>NPA.</b> Non-precision approach	<b>SMS.</b> Safety management systems
<b>NUICAF.</b> Aeronautics of Physical Activity Science Institute	<b>SRSG.</b> Special Representative of the United Nations Secretary-General
<b>OAS.</b> Organization of American States	<b>TC.</b> Technical Committee
<b>OECD.</b> Organisation for Economic Co-operation and Development	<b>TCB.</b> Technical Co-operation Bureau
<b>OFOD.</b> On-flight origin and destination	<b>TCC.</b> Technical Competency Training and Certification
<b>OIFM.</b> Objectives Implementation Funding Mechanism	<b>TCP/IP.</b> Transmission Control Protocol/Internet Protocol
<b>OPAS.</b> Operational assistance	<b>TF.</b> Trust Funds
<b>ORAT.</b> Operational Readiness and Airport Transfer	<b>TIACA.</b> The International Air Cargo Association
<b>OSCE.</b> Organization for Security and Cooperation in Europe	<b>UAT.</b> Universal access transceiver
<b>PANS-ABC.</b> Procedures for Air Navigation Services – ICAO Abbreviations and Codes	<b>UEMOA.</b> Economic and Monetary Union of West Africa
<b>PANS-ATM.</b> Procedures for Air Navigation Services – Air Traffic Management	<b>UNAT.</b> United Nations Administrative Tribunal
<b>PANS-OPS.</b> Procedures for Air Navigation Services – Aircraft Operations	<b>UNDP.</b> United Nations Development Programme
<b>PAPI.</b> Precision approach patch indicator	<b>UNDPKO.</b> United Nations Department of Peacekeeping Operations
<b>PCA.</b> Presidency of Civil Aviation	<b>UNEP.</b> United Nations Environment Programme
<b>PIRGs.</b> Planning and Implementation Regional Groups	<b>UNFCCC.</b> United Nations Framework Convention on Climate Change
<b>PKD.</b> Public key directory	<b>UNGIWG.</b> United Nations Geographic Information Working Group
<b>QNCATC.</b> Queen Noor Civil Aviation Training Centre	<b>UNMIK.</b> United Nations Mission in Kosovo
<b>RAB.</b> Bolivian Aeronautical Regulation	<b>UNODC.</b> United Nations Office on Drugs and Crime
<b>RAO.</b> Regional Affairs Office	<b>UPU.</b> Universal Postal Union
<b>RCC.</b> REDDIG Coordination Committee	<b>USAP.</b> Universal Security Audit Programme
<b>REDDIG.</b> South American Digital Network	<b>USOAP.</b> Universal Safety Oversight Audit Programme
<b>RNAC.</b> Royal Nepal Airlines Corporation	<b>VDL.</b> VHF digital link
<b>RNAV.</b> Area navigation	<b>VHF.</b> Very high frequency
<b>RNP.</b> Required navigation performance	<b>VoIP.</b> Voice over Internet Protocols
<b>RTSP.</b> Required total system performance	<b>VSAT.</b> Very small aperture terminal
<b>RVSM.</b> Reduced vertical separation minima	<b>WAAS.</b> Wide area augmentation system
<b>RVSM.</b> Reduced vertical separation minimum	<b>WAFS.</b> World Area Forecast System
<b>SADC.</b> Southern African Development Community	<b>WCO.</b> World Customs Organization
<b>SAFA.</b> Safety Assessment of Foreign Aircraft	<b>WGS.</b> World Geodetic System
<b>SAFTII.</b> Secure and Facilitated International Travel Initiative	<b>WHO.</b> World Health Organization
<b>SAM.</b> South American	<b>WMO.</b> World Meteorological Organization
<b>SAR.</b> Search and rescue	<b>WRC.</b> World Radiocommunication Conference
<b>SARM.</b> Security Audit Reference Manual	<b>WRIGHT.</b> WHO Research Into Global Hazards of Travel
<b>SARPs.</b> Standards and Recommended Practices	
<b>SARs.</b> Special Administrative Regions	

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## CHAPTER 1. FACTS ABOUT ICAO

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**what it is . . .**

**what it does . . .**

**how it works . . .**

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### WHAT IT IS . . .

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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 188 Contracting States. Its headquarters are in Montréal and it has regional offices in Bangkok, Cairo, Dakar, Lima, Mexico City, Nairobi and Paris.

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### WHAT IT DOES . . .

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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.

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## HOW IT WORKS . . .

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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

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## STRATEGIC OBJECTIVES

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- A: Safety — Enhance global civil aviation safety*
- B: Security — Enhance global civil aviation security*
- C: Environmental Protection — Minimize the adverse effect of global civil aviation on the environment*
- D: Efficiency — Enhance the efficiency of aviation operations*
- E: Continuity — Maintain the continuity of aviation operations*
- F: Rule of Law — Strengthen law governing international civil aviation*

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## FUTURE DIRECTIONS

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Far-reaching resolutions adopted by the 35th Session of the Assembly and revised Strategic Objectives approved by the Council in 2004 have shaped ICAO's progressive and demanding work programme for the next three years.

Our priorities are clear: 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 laws governing international civil aviation.

An innovative Business Plan based on the Strategic Objectives will provide the required framework and impetus for further increasing the efficiency and effectiveness of the Organization within the context of a significantly constrained triennial budget and expanded responsibilities, most notably in the areas of aviation safety and security.

Moreover, the strong recovery of the air transport industry in 2004 and a sustained level of growth predicted for the rest of the decade will produce increasing demands on the global air navigation system, already operating at full capacity in many parts of the world. The pressure to perform has seldom been greater.

Fortunately, ICAO is now strategically positioned to ensure the necessary leadership and coordination for the continued safe, secure, efficient and sustainable development of international civil aviation. As always, it will rely on the expertise and determination of a global workforce and the traditionally strong level of cooperation from its 188 Contracting States and members of the world aviation community.



**The President speaking on ICAO's vision for the future**

In an age of rapidly expanding electronic communications, there is a corresponding desire to travel and visit one another. At the same time, economies the world over have come to rely on air travel to grow and prosper. ICAO is proud of its 60-year record as the global forum for international civil aviation and looks forward to the future with a sharpened focus in meeting the needs of the world for a safe, secure and efficient air transport system.

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## ICAO PUBLICATIONS

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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. Monthly supplements 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. In 2004, ICAO produced 56 new titles/editions, which 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 server are encrypted and secure. These services are currently available in English only; service in other languages is under development.

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## THE ICAO WEBSITE AT [www.icao.int](http://www.icao.int)

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ICAO's home page at [www.icao.int](http://www.icao.int) offers a main window for the general public into the work, various activities and meetings of the Organization.

The ICAO eSHOP at [www.icao.int/eshop](http://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.

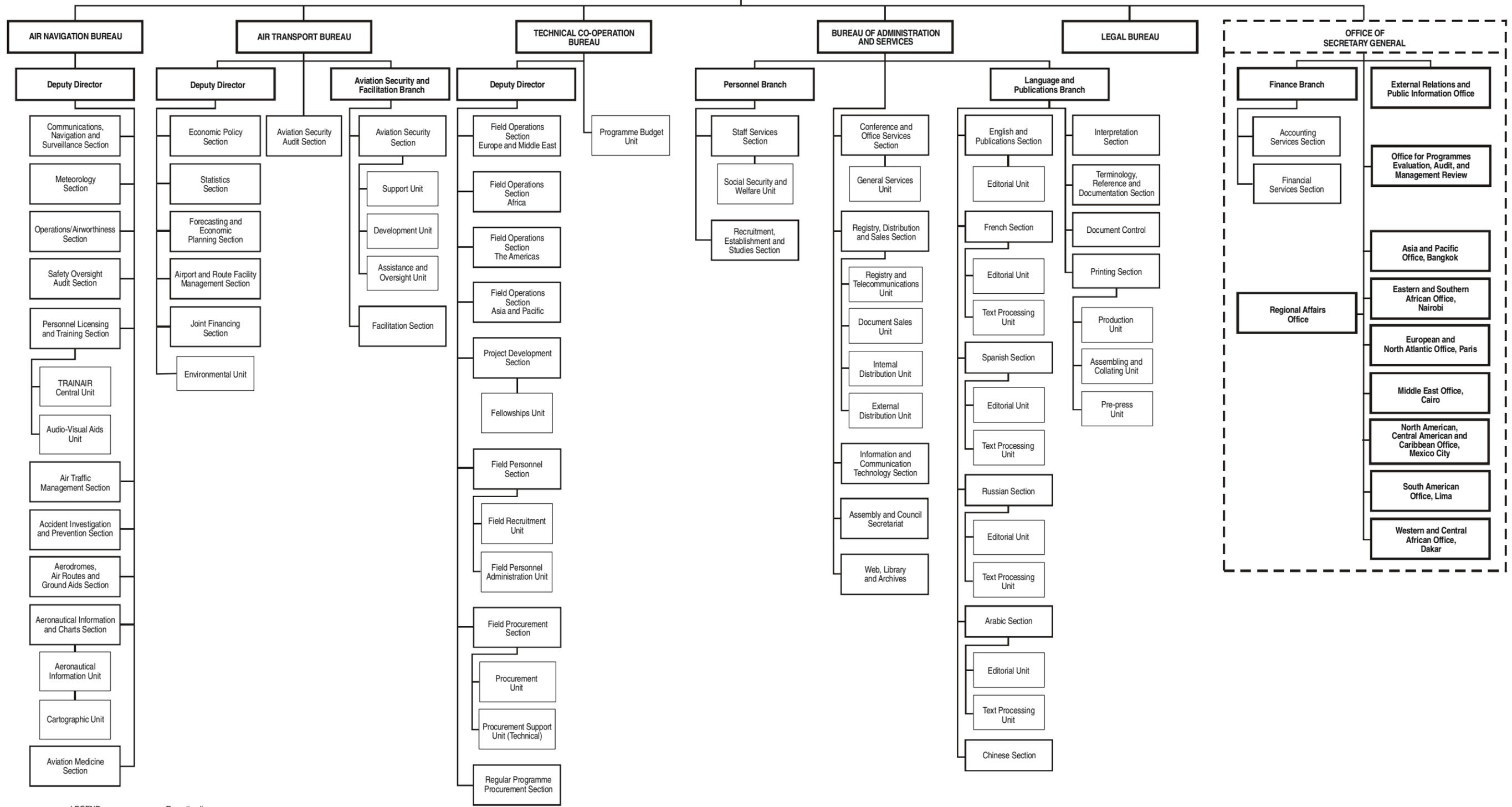
The ICAO-NET is a restricted website featuring unique sets of ICAO documents, including all legal instruments and ICAO Annexes to the *Convention on International Civil Aviation*. One hundred and seventy States, all resident National delegations and 66 international organizations have access.

The Organization's online presence and use of the Internet for dissemination of information and documentation are continually expanding; in 2004, over 8 000 new web pages were added, many of them in English, Arabic, Chinese, French, Russian and Spanish, and 6 000 existing pages were updated. The ICAO websites were visited by half a million separate users and received 25 million hits during 2004.

# STRUCTURE OF ICAO SECRETARIAT

31 December 2004

SECRETARY GENERAL



LEGEND ——— Reporting line  
 - - - - - Reporting line for policy matters

## CHAPTER 2. THE WORLD ECONOMY

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*This chapter summarizes the principal trends and developments in civil aviation and the work of ICAO in 2004. Tables in Appendix 13 provide detailed statistics on the data presented in this chapter.*

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### 1. GLOBAL AND REGIONAL ECONOMIC DEVELOPMENTS

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Recovery of the world economy strengthened during 2004 with gross domestic product (GDP) growth estimated to average 5.1 per cent in real terms, over one percentage point higher than in the previous year (Figure 1). The upturn in industrial production, global trade flows, private consumption and other factors contributed to the growth momentum, while the sharp rise in oil prices had a weakening impact towards the second half of 2004. Industrialized countries achieved a GDP growth rate of 3.4 per cent, well above the level achieved in 2003. The North American economy grew by 4.2 per cent, more than one percentage point higher than in the previous year.

Underpinned by the ongoing rapid expansion of emerging markets, GDP growth for developing countries consolidated at 7.2 per cent, well above the world average but with significant regional variations. Africa's economy achieved a 5.1 per cent GDP increase and showed stability over the previous year. The aggregate economy of the region with the largest share of the world economy, Asia and the Pacific, grew by some 6.5 per cent in 2004. Developing countries in the Asia and the Pacific Region contributed significantly as their average GDP grew by 8.2 per cent; China's GDP alone showed a remarkable growth of 9.5 per cent. Asia's newly industrialized economies posted a 5.5 per cent GDP growth, showing improvement over the previous year due mainly to recovering domestic demand and growth in exports. Japan's GDP grew by 2.6 per cent, while the Australian and the New Zealand economies demonstrated a growth of 3.2 and 5.0 per cent, respectively.

The European Region achieved an average GDP growth of 3.2 per cent, to which the European currency area contributed at a 2.5 per cent rate, a significant improvement over 2003; the upturn, however, remained modest as it was heavily dependent on external demand. The Central and Eastern European economies grew around 6.1 per cent, while the GDP growth of the economies of the Commonwealth of Independent States averaged at an 8.2 per cent rate.

Economic growth in the Latin American and the Caribbean Region showed a continuing recovery with an increase of 5.7 per cent in 2004, almost more than 3 percentage points higher than in 2003. The main factors underlying this recovery are a gradual increase in exports and a pick-up in domestic demand.

With oil production reaching capacity levels in 2004, the Middle East Region's economy grew by about 5.5 per cent, slowing down by about 0.3 percentage points compared to 2003 when the expansion was driven by higher oil production and prices.

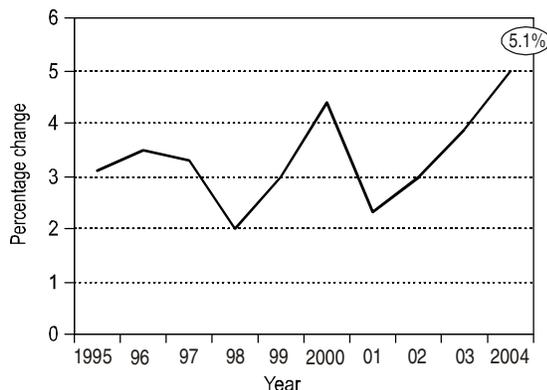
The world trade volume in goods and services is estimated to have grown by approximately 9.9 per cent in 2004.

International tourist arrivals in 2004 increased by an estimated 10 per cent. The World Tourism Organization estimates that approximately 760 million tourists travelled to foreign countries in 2004, some 69 million more than the previous year (Figure 2). Growth was particularly strong in Asia and the Pacific (29 per cent) and the Middle East (20 per cent), followed by the Americas (10 per cent), Africa (7 per cent) and Europe (4 per cent).

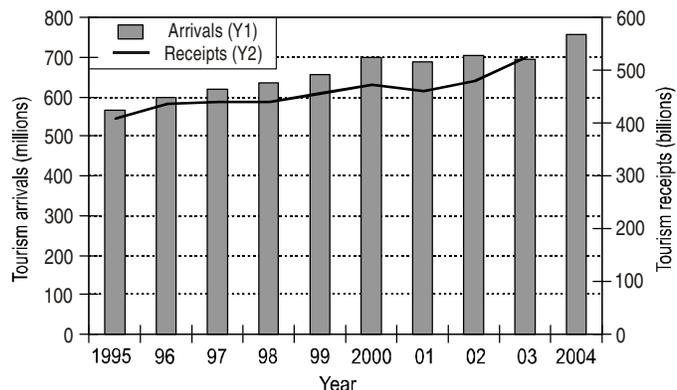
## 2. TRAFFIC

### Scheduled Operations

The total scheduled traffic carried by the airlines of the 188 Contracting States of ICAO amounted to almost 1 890 million passengers and some 38 million tonnes of freight. The overall passenger/freight/mail tonne-kilometres performed showed an increase of some 13 per cent over 2003, with international tonne-kilometres showing an increase of about 14 per cent (Tables 1 and 2). The relatively strong traffic increase achieved in 2004 in part reflects the traffic recovery by the airlines in Asia/Pacific which, in 2003, were negatively affected by the outbreak of the Severe Acute Respiratory Syndrome (SARS) in that region. Figure 3 shows the trend from 1995 to 2004.



**Figure 1.** Development in world GDP in constant prices year-on-year changes, 1995 – 2004



**Figure 2.** International tourism receipts and arrivals U.S. dollars, 1995 – 2004

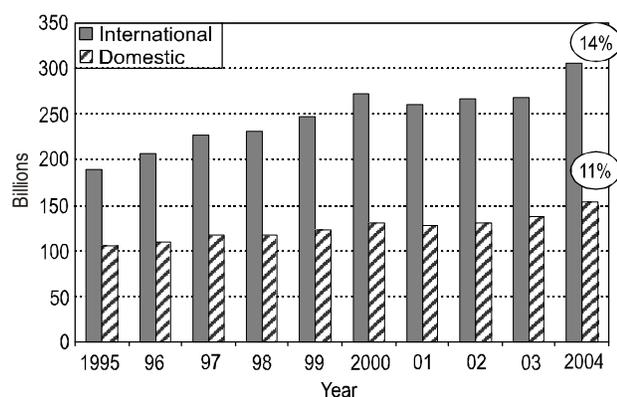
In 2004 the increase in the overall capacity was less than the change in traffic (Figure 4). Hence, the average passenger load factor on total scheduled services (domestic plus international) increased to 73 per cent, and the weight load factor increased to 62 per cent (Table 3).

On a regional basis, some 32 per cent of the total traffic volume (passengers/freight/mail) was carried by North American airlines. Asia/Pacific airlines carried 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).

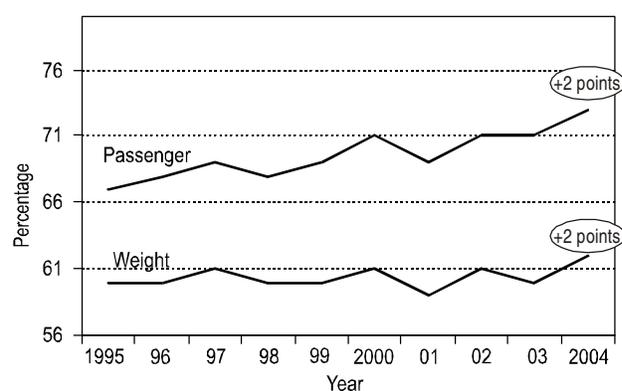
Data for individual countries (Tables 5 and 6) show that in 2004 about 42 per cent of the total volume of scheduled passenger, freight and mail traffic was accounted for by the airlines of the United States, Germany and China (excluding the traffic from the Special Administrative Regions of Hong Kong and Macao) (about 32, 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

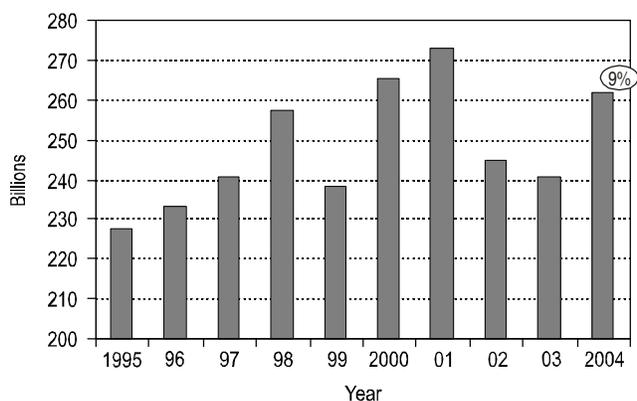
It is estimated that in 2004 total international non-scheduled passenger-kilometres increased by about 9 per cent compared with 2003, with the non-scheduled share of overall international air passenger traffic remaining around 12 per cent (Figure 5 and Table 7). Domestic non-scheduled passenger traffic represents about 7 per cent of total non-scheduled passenger traffic and around 1 per cent of total domestic passenger traffic worldwide.



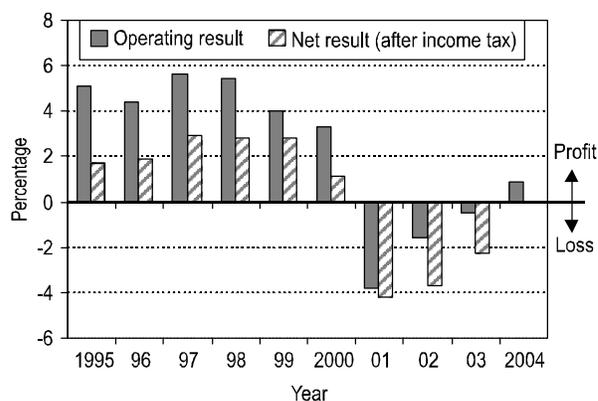
**Figure 3. Scheduled traffic**  
tonne-kilometres performed, 1995 – 2004



**Figure 4. Load factors**  
scheduled services, 1995 – 2004



**Figure 5. International non-scheduled traffic passenger-kilometres performed, 1995 – 2004**



**Figure 6. Financial results scheduled airlines, 1995 – 2004**

### Airport Operations

In 2004, the 25 largest airports in the world handled some 1 124 million passengers, according to preliminary estimates (Table 8). During the same period, the airports concerned (16 of which are located in North America, 6 in Europe and 3 in Asia) also handled some 11 708 million commercial air transport movements.

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## 3. FINANCES

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### Airlines

Preliminary estimates for 2004 indicate that the world’s scheduled airlines as a whole experienced operating profits after three consecutive years of operating losses (Table 9 and Figure 6).

The operating revenues of scheduled airlines of ICAO Contracting States are tentatively estimated at \$374 300 million<sup>1</sup> in 2004 and operating expenses for the same airlines at \$370 800 million, giving an operating profit of 0.9 per cent of operating revenues. This follows an operating loss of 0.5 per cent in 2003.

Per tonne-kilometre, operating revenues increased from 73.7 cents in 2003 to an estimated 76.1 cents in 2004, while operating expenses increased from 74.1 cents to an estimated 75.4 cents.

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1. All dollar amounts listed in this chapter are in U.S. dollars, unless otherwise specified.

### **Airports and air navigation services**

Despite the substantial traffic growth, some airports experienced financial difficulties in 2004, one contributing factor being the new and intensified security measures. Airports now have to face the high costs of implementing the enhanced security measures. Many airports had to decrease space devoted to commercial activities because of the impact of the security measures on the terminal design and passenger flow. Others have seen their credit rating downgraded as markets realized that airport investments can have downside risks like any other business.

Meanwhile, the rapid expansion of low-cost carriers, mainly in Europe and Asia, has put strong pressure on airports to increase capacity while decreasing their fees. Airports are thus discovering that they have to be flexible in order to satisfy the needs of this highly cost-conscious category of users. In spite of the temporary downturn in traffic experienced during the previous years, construction of new capacity or expansion thereof has continued unabated, and the methods used for financing these projects have evolved. For example, where feasible, more emphasis is now being placed on self-generated revenues from commercial activities.

With aircraft movements returning to earlier numbers, the financial situation for air navigation services providers improved during 2004, particularly where providers had initiated cost-saving measures in cooperation with other providers.

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## **4. COMMERCIAL DEVELOPMENTS**

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### **Airports and air navigation services**

After the slow-down experienced since 2001, the privatization/commercialization process of airports has started to pick up again, particularly in Asia, Europe and Latin America, fuelled by renewed traffic growth. Today, a majority of international airports are either privately owned and operated (full or majority ownership and control), or have private participation/involvement (minority ownership, management contract, concession/lease, etc.), or are operated as public commercialized entities. The fact that the most profitable airports have already been considered by private investors could affect the potential for further privatization of airports worldwide.

With the emergence of the air traffic management (ATM) operational concept and the evolution towards a global air navigation system, the recent focus of the provision of air navigation services seems to be directed more towards international cooperation than privatization at the national level. Recent activities have mainly revolved around closer cooperation between providers at the regional level in order to implement global harmonization standards and to improve cost-efficiency and customer satisfaction. However, there are signs that the privatization process of air navigation services providers is resuming, notably within Europe.

### Carriers

On the basis of schedules published in multilateral airline schedule guides, it is estimated that at the end of 2004 there were approximately 812 air carriers worldwide providing international and/or domestic scheduled passenger services (including 92 air carriers which provide both scheduled passenger and all-freight services) and about 88 operating only scheduled all-freight services. The total number of air carriers in 2004 is estimated to be about 900, compared with 890 operating in 2003.

### Aircraft

Between 1995 and 2004, the reported number of commercial air transport aircraft in service increased by about 32 per cent from 16 586 to 21 943 (excluding aircraft with a maximum take-off mass of less than 9 000 kg). Within these totals, turbojet aircraft numbers increased by about 33 per cent, from 13 434 to 17 895, over the same period (Figure 7 and Table 10).

In 2004, 908 jet aircraft were ordered (compared with 861 in 2003) and 914 aircraft were delivered (compared with 917 in 2003). The backlog of unfilled orders at the end of 2004 was 3 258 aircraft compared with 3 272 at the end of 2003.

The financial commitment in terms of jet aircraft orders placed with major aircraft manufacturers in 2004 is estimated to be about \$65 000 million.

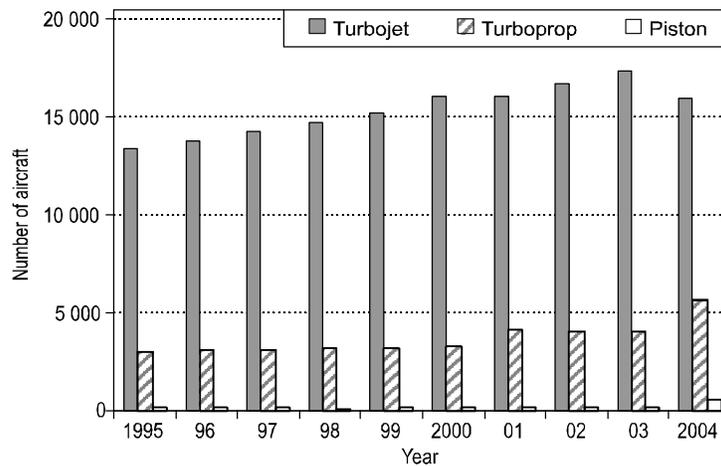


Figure 7. Total commercial air transport fleet  
1995 – 2004

The number of turboprop aircraft ordered in 2004 was 51, with 54 aircraft delivered during the year.

#### **Most active aircraft type transactions, 2004**

Aircraft	Orders	Deliveries	Backlog
Airbus 320	180	101	520
Boeing 737	147	202	774
Embraer RJ	132	134	400
Canadair RJ	130	175	229
Airbus 319	67	86	376

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## **5. ECONOMIC REGULATION**

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During the year, a total of 76 bilateral air services agreements were reportedly concluded or amended by 60 States. Continuing a trend, over 70 per cent of these agreements and amendments contained some form of liberalized regulatory arrangements. For example, 11 “open skies” agreements were concluded among 13 countries; these agreements provide for full-market access without restrictions on designations, route rights, capacity, frequencies, code-sharing and tariffs. By December, 100 open skies agreements had been concluded (20 in the last three years) involving 78 States. Approximately 65 per cent of the agreements involved developing countries.

Air transport liberalization activity 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 objective of providing greater market access and improving services among the member States concerned. By December, there were at least 11 such arrangements with several other potential arrangements in the pipeline. During the year, there were several noteworthy regional developments: Brunei, Singapore and Thailand signed, in February, and December, the Multilateral Agreements on the Full Liberalization of All-Cargo Services and on the Liberalization of Passenger Air Services, which are open to other member States of the Association of South East Asian Nations (ASEAN); 10 member States of the ASEAN agreed, in November, to accelerate the integration of air services as one of 11 priority sectors, aiming at the establishment of an ASEAN Economic Community by 2020; the Air Transport Agreement among the member States and associate members of the Association of the Caribbean States was open to signature in February and has so far been signed by 7 States; and the European Union (EU) was expanded, in May, from 15 to 25 States by adding 10 central, eastern and southern European States.

In February, the Council of the EU formally adopted a regulation to protect the rights of air passengers when facing denied boarding, cancellation of their flight or a long delay, and a regulation to extend the scope of the European Commission’s competition law authority to agreements between EU and third country airlines. In March, the Council adopted a regulation on the protection of Community airlines against subsidization and predatory pricing practices of third country airlines.

The European Commission conducted negotiations on air services agreements with third countries as a consequence of its negotiating mandate conferred by the Council of the EU in June 2003. The Commission's mandate is to negotiate air services agreements with the United States on behalf of all member States for the creation of an Open Aviation Area (OAA), as well as 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 European Court of Justice (ECJ) in November 2002. While the OAA negotiations with the United States are ongoing, the Commission has so far initialled "horizontal" agreements with Azerbaijan, Chile, Georgia, and Lebanon. In addition, the Commission proposed, in February, a framework for negotiations with neighbouring countries such as, Bulgaria, Morocco, Romania and Turkey. In April, the Council of the EU and the European Parliament formally adopted a regulation on the implementation of air services agreements between member States and third countries. In July, the Commission opened infringement proceedings against eight member States for their non-compliance with the ECJ's 2002 judgement and also against four more member States for having signed "open skies" agreements with the United States.

At the national level, several States launched a review process of their air transport policies in light of the global trend toward increased liberalization. Some of these policies seek to liberalize air transport services, in whole or in part, on a unilateral basis without requiring comparable rights from bilateral partners in return. Others aim at liberalizing domestic air transport markets and also at permitting more carriers to fly international routes. For example, India allowed, in March, privately-owned domestic airlines to operate international services to States in the South Asian Association of Regional Cooperation.

The year saw the increased presence of airline alliances including the three global alliance groupings, i.e. Star Alliance, oneworld, and SkyTeam. The fourth group dubbed "Wings" was absorbed into the SkyTeam group in September when Continental Airlines, KLM, and Northwest Airlines officially joined the latter group. The expansion and raised level of consolidation through alliances continued to attract attention from regulatory authorities. In Europe, the European Commission approved a cross-border merger between Air France and KLM in February and an alliance agreement between Air France and Alitalia in April. In the United States, the Department of Transportation (DOT) approved and granted, in April, antitrust immunity to an alliance agreement between American Airlines and SN Brussels Airlines. In the Pacific region, the New Zealand High Court rejected, in September, a proposed trans-Tasman alliance agreement between Qantas Airways and Air New Zealand on appeal, while the Australian Competition Tribunal overruled, in October, a 2003 decision of the Australian Competition and Consumer Commission to decline the proposed alliance.

The technology for eCommerce has increasingly had an impact on the airline and travel industries in both product distribution and regulation. Although the majority of airline ticket sales are still being made through travel agents, online sales have increased significantly, especially in countries where Internet and credit card use are high. For low-cost carriers, ticket sales are primarily being made online through their own websites. The use of the Internet, through third-party providers and directly

by consumers and other businesses, has enabled airlines to considerably reduce distribution costs, including agency commissions and computer reservation system (CRS) booking fees. To address the changes in airline product distribution, the existing CRS regulations are under review by Canada and the European Commission. In the United States, the DOT nullified most of the CRS rules in January with the termination of the remaining rules in July.

Many States continued to provide varying forms of State aids to their national airlines facing financial difficulties. For example, the Government of Namibia decided to inject a further N\$366 million into Air Namibia, totalling about N\$1 800 million since 1999. In April, the Government of Trinidad and Tobago provided an emergency cash injection of U.S.\$10 million and a \$30 million debt to equity swap to BWIA West Indies Airways, which had already received about \$38 million and a debt guarantee since 2002. In May, the Government of Italy decided to provide a bridging loan of EUR 400 million for Alitalia, into which the Government had injected capital in 2002. In July, the European Commission approved a bridging loan for Alitalia with a restructuring condition. In addition to aid to debt-ridden national airlines, indirect assistance, such as the reduction in landing charges, has been widely provided especially by local airports and regional governments that wish to attract low-cost carriers. However, the European Commission decided in February that a part of the aid that Ryanair had received from Belgian regional authorities was judged to contravene EU Regulations on anti-competitive State aid and should be reimbursed.

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## 6. AIRCRAFT ACCIDENTS

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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 2004 there were 9 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 203. This compares with 7 fatal accidents and 466 passenger fatalities in 2003 (Table 11)<sup>2</sup>. Between 2003 and 2004, there was a significant increase in traffic, consequently the number of passenger fatalities per 100 million passenger-kilometres decreased to 0.01 from 0.02 in 2003. The number of fatal aircraft accidents per 100 million aircraft-kilometres flown remained at 0.03 and the number of fatal aircraft accidents per 100 000 landings increased to 0.04 from 0.03 in 2003 (Figure 8).

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2. The accident of an aircraft involving 133 passenger fatalities which previously had been assigned to non-scheduled operations has been re-designated as a scheduled flight.

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 3 accidents in 2004 with 102 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for less than 2 per cent of the scheduled traffic volume, there were 5 accidents with 101 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 2004 (including 2 aircraft operating all-cargo services with passengers on board) compared with 25 in 2003. These accidents accounted for 207 passenger fatalities in 2004 compared with 217 in 2003.

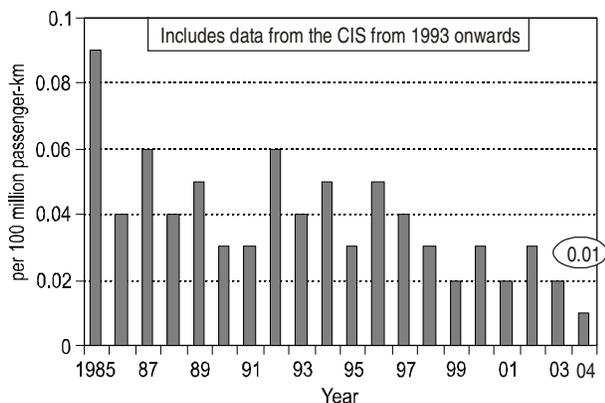
In non-scheduled operations performed with aircraft of more than a maximum certificated take-off mass of 9 000 kg, whether by scheduled airlines or non-scheduled operators, there were 6 accidents involving 161 passenger fatalities in 2004.

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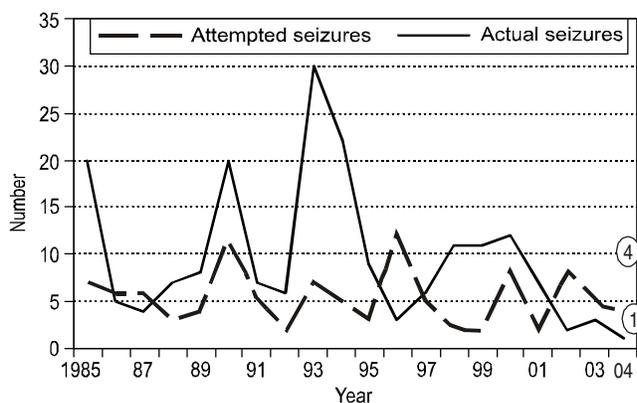
## **7. ACTS OF UNLAWFUL INTERFERENCE**

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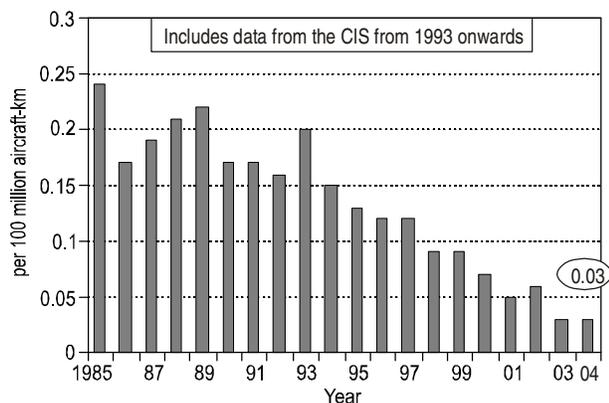
During the year, 16 acts of unlawful interference were recorded. These acts consisted of 1 unlawful seizure, 4 attempted seizures, 2 facility attacks, 2 attempted facility attacks, 3 sabotages of which 2 resulted in total destruction of aircraft in flight and 90 persons killed, 1 attempted sabotage and 3 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).



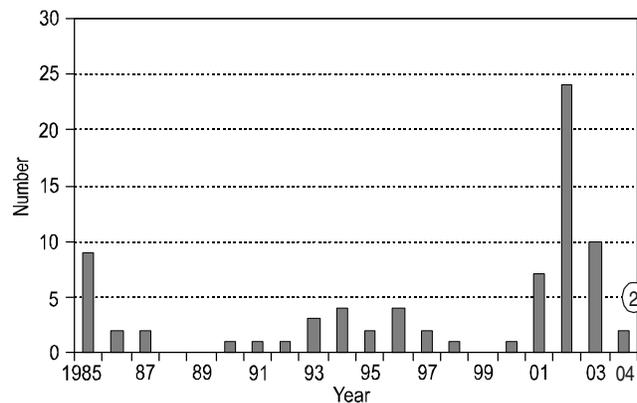
Number of passengers killed per 100 million passenger-kilometres on scheduled services



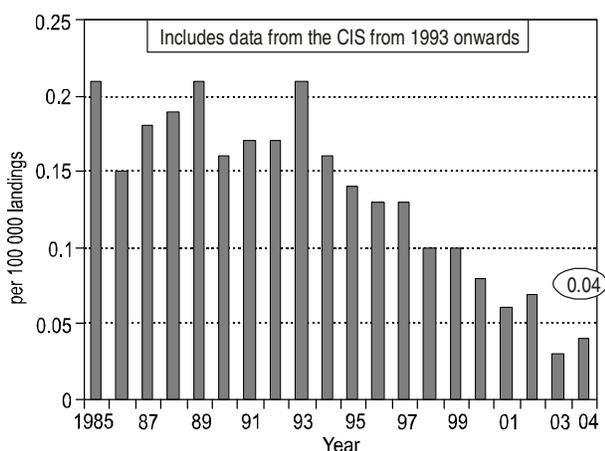
Acts of unlawful seizure



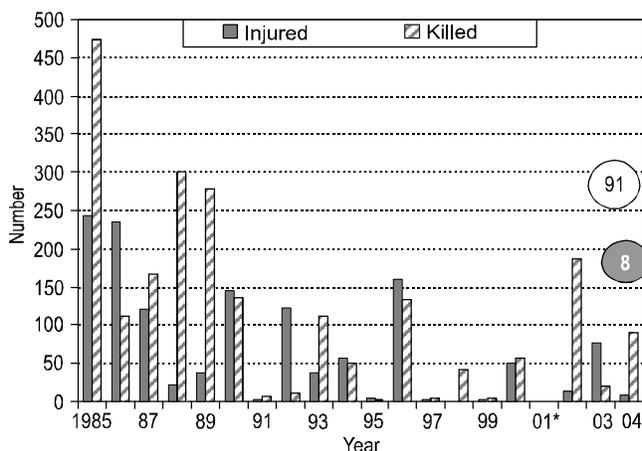
Number of fatal accidents per 100 million aircraft-kilometres on scheduled services



Acts of facility attacks



Number of fatal accidents per 100 000 landings by aircraft on scheduled services



Number of persons killed or injured

\*For 2001: Injured – 3 271, Killed – 3 525.

**Figure 8. Aircraft accident statistics 1985 – 2004**

**Figure 9. Aviation security statistics 1985 – 2004**