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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 2002 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 2004, 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.

Chapter I summarizes the principal trends and developments in civil aviation and the work of the Organization during the year; the activities of ICAO itself are described in Chapters II to X.

The Council held three sessions in 2002. These were the One hundred and sixty-fifth Session from 21 February to 15 March, with a total of thirteen meetings; the One hundred and sixty-sixth Session from 21 May to 14 June, with a total of fourteen meetings; and the One hundred and sixty-seventh Session from 12 November to 4 December, with a total of fourteen meetings, three of which were held outside the Council phase. Authority was delegated to the President to act on a number of matters, as necessary, when the Council was not in session.



Assad Kotaite
President of the Council

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Glossary

- ACA.** Airspace Control Authority
ACAAC. Association of Civil Aviation Authorities of the Caribbean
ACAC. Arab Civil Aviation Commission
ACAS. Airborne collision avoidance system
ACC. Area control centre
ACI. Airports Council International
ACSA. Central American Safety Oversight Agency
ADB. Asian Development Bank
ADREP. Accident and incident data reporting
ADS. Automatic dependent surveillance
ADS-B. Automatic dependent surveillance-broadcast
AENA. Spanish Airports Authority
AEROCOM. Aeronautical communications
AEROMET. Aeronautical meteorology
AFCAC. African Civil Aviation Commission
AFDD. Audit findings and differences database
AFI. Africa-Indian Ocean
AFIS. Aerodrome flight information services
AFRAA. African Airlines Association
AFS. Aeronautical fixed service
AFTN. Aeronautical fixed telecommunication network
AGA. Aerodrome, air routes and ground aids
AH-DE. Ad Hoc Group of Specialists on the Detection of Explosives
AIG. Accident investigation and prevention
AIP. Aeronautical Information Publication
AIRAC. Aeronautical information regulation and control
AIS/MAP. Aeronautical information and charts
AIS. Aeronautical information services
AISMAPSG. Aeronautical Information and Charts Study Group
AITAL. International Association for Latin American Air Transport
AJAB. Advisory Joint Appeals Board
ALA. Approach and landing accidents
ALAR. Approach and landing accident reduction
AMDAR. Aircraft Meteorological Data Relay
AMHS. ATS message handling system
AMOSSG. Aerodrome Meteorological Observing Systems Study Group
AMS. Aeronautical mobile service
ANAC. CAA Côte d'Ivoire
ANB. Air Navigation Bureau
ANC. Air Navigation Commission
ANP. Air Navigation Plan
ANS. Air navigation services
ANSConf. Conference on the Economics of Airports and Air Navigation Services
AOSCF. Administrative and operational services cost fund
AOT. Airports of Thailand
APANPIRG. Asia/Pacific Air Navigation Planning and Implementation Regional Group
APEC. Asia Pacific Economic Cooperation Forum
API. Advance passenger information
APIRG. AFI Planning and Implementation Regional Group
APT. Asia-Pacific telecommunity
APV. Approach with vertical guidance
A-SMGCS. Advanced surface movement guidance and control systems
ASA. Aviation Security Audit
ASAS. Airborne separation assurance system
ASD. Aviation Safety Division
ASECNA. Agency for Air Navigation Safety in Africa and Madagascar
ASIA/PAC. Asia/Pacific
ASTC. Aviation Security Training Centre
AsMA. Aerospace Medical Association
ATB. Air Transport Bureau
ATC. Air traffic control
ATConf. Worldwide Air Transport Conference
ATDSG. Aircraft Type Designators Study Group
ATLAS. Automated Library System
ATM. Air traffic management
ATMCP. Air Traffic Management Operational Concept Panel
ATN. Aeronautical telecommunication network
ATO. Air transportation office
ATRP. Air Transport Regulation Panel
ATS. Air traffic services
AU. African Union
AVSEC. Aviation Security

- AWOS.** Automatic weather observation system
- BUFR.** Binary universal form for the representation of meteorological data
- CAA.** Civil Aviation Authority
- CACAS.** Civil Aviation Caretaker Authority for Somalia
- CAeM.** Commission for Aeronautical Meteorology
- CAEP.** Committee on Aviation Environmental Protection
- CAFSAT.** Central Atlantic FIRs Satellite Network
- CAPS.** Civil Aviation Purchasing Service
- CAR.** Caribbean
- CAST.** Commercial aviation safety team
- CATC.** Civil Aviation Training Centre
- CATCV.** Civil Aviation Training Centre of Viet Nam
- CBS.** Commission for Basic Systems
- CCL.** Croatia Control Limited
- CEATS.** Central European Air Traffic Services
- CEB.** United Nations System Chief Executives Board
- CFIT.** Controlled flight into terrain
- CGWI.** Council Study Group on Aviation War Risk Insurance
- CIS.** Commonwealth of Independent States
- CITEL.** Inter-American Telecommunication Commission
- CNS.** Communications, Navigation and Surveillance
- COCESNA.** Central American Corporation for Air Navigation Services
- COM.** Communications
- COMESA.** Common market for Eastern and Southern Africa
- COPAD.** Consolidated procedures for appointment of Directors
- COSCAP.** The Cooperative Development of Operational Safety and Continuing Airworthiness Project
- COSPAS.** Space System for Search of Vessels in Distress
- CPDLC.** Controller-pilot data link communications
- CRS.** Computer reservation systems
- CTS.** Council for Trade in Services
- CVOR.** Conventional VHF omnidirectional radio range
- DAGMAR.** Database of aeronautical agreements and arrangements
- DCA.** Department of Civil Aviation
- DCA.** Directorate of Civil Aviation
- DEPV.** Department of Electronics and Flight Protection
- DFID.** Department for International Development
- DGCA.** Director General of Civil Aviation
- DGP.** Dangerous Goods Panel
- DME.** Distance measuring equipment
- DOT.** Department of Transportation
- DPKO.** Department of Peacekeeping Operations
- DSU.** Document Sales Unit
- DTD.** Document Type Definition
- DVOR.** Doppler VHF omnidirectional radio range
- EAC.** East African Community
- EANPG.** European Air Navigation Planning Group
- EAO.** Office for Programmes Evaluation, Audit, and Management Review
- EATCHIP.** European ATC Harmonization and Integration Programme
- EC.** European Community
- ECA.** Economic Commission for Africa
- ECAC.** European Civil Aviation Conference
- ECE.** Economic Commission for Europe
- ECFALIS.** ECAC facilitation information system
- ECOWAS.** Economic Community of West African States
- EDEN.** Electronic Documents and Enquiry Network
- EDU.** External Distribution Unit
- EEA.** European Economic Area
- EIB.** European Investment Bank
- ELT.** Emergency locator transmitter
- EMARSSH.** Europe, Middle East, Asia Route Structure South of the Himalayas
- ESAF.** Eastern and Southern African
- ESCAP.** Economic and Social Commission for Asia and the Pacific
- ESCWA.** Economic and Social Commission for Western Asia
- ETAC.** Civil Aviation Training School
- EU.** European Union
- EUR.** European
- EUROCONTROL.** European Organization for the Safety of Air Navigation
- EURPOL.** Task Force on Intra-European Air Transport Policy
- FAA.** Federal Aviation Administration
- FAI.** Fédération aéronautique internationale
- FAL.** Facilitation
- FASID.** Facilities and Services Implementation Document
- FATCA.** Federal Air Traffic Control Authority
- FCLTP.** Flight Crew Licensing and Training Panel
- FIC.** Flight information centres
- FIDAE.** International Air and Space Fair
- FIR.** Flight Information Region
- FIS.** Flight Information Services
- FMG.** Frequency Management Group
- FSF.** Flight Safety Foundation
- GASP.** Global aviation safety programme
- GATS.** General Agreement on Trade in Services
- GBAS.** Ground-based augmentation system
- GCAA.** General Civil Aviation Authority
- GDP.** Gross domestic product
- GEOSAR.** Geostationary satellites
- GEPEJTA.** Group of Experts on Policies, Economics and Legal Matters in Air Transport

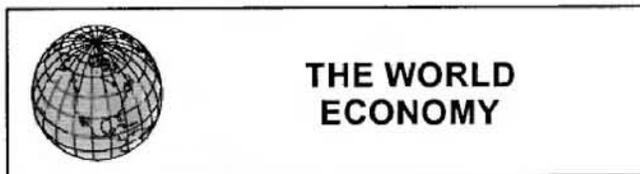
- GLONASS.** Global navigation satellite system
GNSS. Global navigation satellite system
GPS. Global positioning system
GPWS. Ground proximity warning system
GREPECAS. CAR/SAM Regional Planning and Implementation Group
GRIB. Gridded binary
GSI. General Secretariat Instructions
HCAA. Hellenic Civil Aviation Authority
HLCM. High-Level Committee on Management
HLCP. High-Level Committee on Programmes
IAASM. International Academy of Aviation and Space Medicine
IAC. Interstate Aviation Committee
IADB. Inter-American Development Bank
IAEA. International Atomic Energy Agency
IAOPA. International Council of Aircraft Owner and Pilot Associations
IATA. International Air Transport Association
IAVW. International airways volcano watch
IBAC. International Business Aviation Council
IBIS. ICAO bird strike information system
ICC. International Chamber of Commerce
ICPO-INTERPOL. International Criminal Police Organization
ICT. Information and Communication Technology
IETC. International Explosives Technical Commission
IFACA. International Federation of Aeronautical Communications Associations
IFALPA. International Federation of Air Line Pilots' Associations
IFATCA. International Federation of Air Traffic Controllers' Associations
IFFAS. International Financial Facility for Aviation Safety
IFR. Instrument flight rules
ILO. International Labour Office
ILS. Instrument landing system
IMO. International Maritime Organization
IMSO. International Mobile Satellite Organization
IPCC. Intergovernmental Panel on Climate Change
IRCA. International Register of Civil Aircraft
ISASI. International Society of Air Safety Investigators
ISBN. International Standard Book Number
ISCS. International Satellite Communication System
ISDB. Integrated statistics database
ISO. International Organization for Standardization
ITS. Information Technology and Systems
ITU. International Telecommunication Union
JAA. Joint Aviation Authorities
JSSI. Joint Safety Strategy Initiative
LACAC. Latin American Civil Aviation Commission
LAM. Latin America
LAS. League of Arab States
LEB. Legal Bureau
LEOSAR. Low altitude earth orbiting constellation of satellites
LOSA. Line Operations Safety Audit
MEDA. Maintenance error decision aid
MET. Meteorology
METAR. Aviation routine weather report (in aeronautical meteorological code)
METLINKSG. Meteorological Information Data Link Study Group
MID. Middle East
MIDANPIRG. MID Air Navigation Planning and Regional Implementation Group
MOCAT. Ministry of Civil Aviation and Tourism
MONUC. Mission de l'Organisation des Nations Unies en République démocratique du Congo
MoU. Memorandum of Understanding
MRTD. Machine Readable Travel Documents
MSA. Management service agreement
MWO. Meteorological Watch Office
NA. North Asia
NAM. North American
NAT SPG. North Atlantic Systems Planning Group
NATO. North Atlantic Treaty Organization
NEPAD. New Partnership for Africa's Development
NIMA. National Imagery and Mapping Agency
NPA. Non-precision approach
NTSB. National Transportation Safety Board
OAU. Organization of African Unity
OCP. Obstacle Clearance Panel
OCR. Optical character recognition
OECD. Organisation for Economic Co-operation and Development
OFOD. On-flight origin and destination
OFZ. Obstacle free zone
OHR. Office of the High Representative
OIFM. Objectives Implementation Funding Mechanism
OPAS. Operational assistance
OPLINKP. Operations Data Link Panel
OPMET. Operational meteorological information
OPS/AIR. Operations/Airworthiness
ORAT. Operational Readiness and Airport Transfer
PAAST. Panamerican Aviation Safety Team
PANS. Procedures for Air Navigation Services
PANS-ABC. Procedures for Air Navigation Services — ICAO Abbreviations and Codes
PANS-ATM. Procedures for Air Navigation Services — Air Traffic Management
PANS-OPS. Procedures for Air Navigation Services — Aircraft Operations
PEL. Personnel licensing
PIASA. Pacific Islands Air Services Agreement
PIRG. Planning and implementation regional group
PREPCOM. Preparatory Committee

- RAFC.** Regional area forecast centre
RASOS. Regional Aviation Safety Oversight System
REDDIG. South American digital network
RF. Radio frequency
RFF. Rescue and fire fighting
RNAV. Area navigation
RNP. Required navigation performance
RVSM. Reduced vertical separation minima
SA. South Asia
SADC. Southern African Development Community
SADIS. Satellite distribution system for information related to air navigation
SAFA. Safety assessment of foreign aircraft
SAM. South America
SAR. Special Administrative Region
SAR. Search and Rescue
SARAST. South Asia Regional Aviation Safety Team
SARM. Security Audit Reference Manual
SARPs. Standards and Recommended Practices
SARSAT. Search and Rescue Satellite-Aided Tracking
SAT. South Atlantic
SATCC. Southern African Transport and Communications Commission
SBAS. Satellite-based augmentation system
SCRAG. SADIS Cost Recovery Administrative Group
SCT/DGAC. Secretaria de Comunicaciones y Transportes, Dirección General de Aeronáutica Civil
SEA. Southeast Asia
SEARAST. Southeast Asia Regional Aviation Safety Team
SFOR. Stabilization force
SGWI. Special Group on Aviation War Risk Insurance
SIGMET. Information concerning en route weather phenomena which may affect the safety of aircraft operations
SIGWX. Significant weather
SIP. Special implementation project
SPPD. Support Services for Policy and Programme Development
SSPM. Secretariat Standards and Procedures Manual
SSR. Secondary surveillance radar
STP. Standardized Training Package
STS. Support for technical services at the project level
TAA. Terminal arrival altitude
TAF. Terminal aerodrome forecast
TAG-MRTD. Technical Advisory Group on Machine Readable Travel Documents
TCB. Technical Co-operation Bureau
TCP. Technical Cooperation Programme
TEM. Threat and error management
TF. Trust Funds
TRD. Terminology, Reference and Documentation
TWG. Technical Working Group
UACC. Upper Airspace Control Centre
UAT. Universal access transceiver
UEMOA. Economic and Monetary Union of West Africa
UN. United Nations
UNAT. United Nations Administrative Tribunal
UNDCP. United Nations Drug Control Programme
UNDP. United Nations Development Programme
UNDPKO. United Nations Department of Peacekeeping Operations
UNEP. United Nations Environment Programme
UNFCCC. United Nations Framework Convention on Climate Change
UNMIK. United Interim Administration Mission in Kosovo
UNOPS. United Nations Office for Project Services
UPU. Universal Postal Union
USAP. Universal Security Audit Programme
USOAP. Universal Safety Oversight Audit Programme
VAAC. Volcanic ash advisory centre
VAP. Visual Aids Panel
VDL. VHF digital link
VHF. Very high frequency
VNAV. Vertical navigation
VOR. VHF omnidirectional radio range
VSAT. Very small aperture terminal
VTOL. Vertical take-off and landing
WACAF. Western and Central African Office (Dakar)
W AFC. World area forecast centre
WAFS. World area forecast system
WAFSSG. World Area Forecast System Study Group
WCO. World Customs Organization
WGS-84. World Geodetic System — 1984
WHO. World Health Organization
WIPO. World Intellectual Property Organization
WLA. Web, Library and Archives
WMO. World Meteorological Organization
WRC. ITU World Radiocommunication Conference
WRC-2003. World Radiocommunication Conference (2003)
WRIGHT. WHO Research Into Global Hazards of Travel
WSIS. World Summit on the Information Society
WTO-OMC. World Trade Organization
WTO-OMT. World Tourism Organization
XML. eXtensible Markup Language

Chapter I

The Year in Summary

This chapter summarizes the principal trends and developments in civil aviation and the work of ICAO in 2002. Tables in Appendix 12 provide detailed statistics on the data presented in this chapter.



In 2002, the world economy began to recover from the sharp slowdown in 2001, with trade and industrial production improving across almost all regions. The world gross domestic product (GDP) grew approximately 3.0 per cent in real terms (Figure 1). For the industrialized countries, GDP growth of 1.8 per cent signalled recovery at a slow

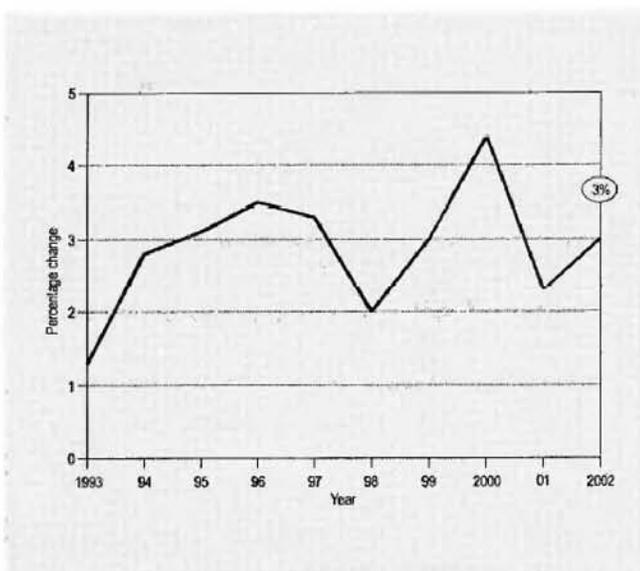


Figure 1. Development in world GDP in constant prices year-on-year changes, 1993–2002

pace. The North American economy grew by 2.5 per cent, more than 2 percentage points over the previous year. GDP growth for developing countries consolidated at 4.6 per cent, above the world average.

Africa's economy achieved a 3.4 per cent GDP increase. The aggregate economy of the region with the largest share of the world economy, Asia and the Pacific, grew by some 4.8 per cent in 2002. Developing countries in the Asia and the Pacific Region contributed significantly as their average GDP grew by 6.5 per cent. China's GDP again showed a strong growth of 8.0 per cent, while Asia's newly industrialized economies recovered significantly at 4.6 per cent GDP growth. Japan's GDP grew marginally (0.3 per cent), while both the Australian and the New Zealand economies expanded growth momentum, to around 4 per cent.

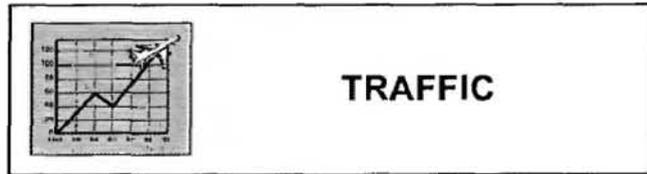
The European Region achieved an average GDP growth of 1.3 per cent, to which the European Union contributed at a 0.8 per cent rate, below the average for industrialized countries. The Central and Eastern European economies grew around 2.9 per cent, while in the countries of the Commonwealth of Independent States (CIS) the GDP grew an average 4.8 per cent, almost 1.5 per cent lower than the previous year.

The Latin America and the Caribbean Region had yet to recover from the 2001 slowdown in the global economy as well as the financial crisis in Argentina; the Region's GDP contracted by 0.1 per cent.

The Middle East Region's economy grew by about 3.9 per cent, reduced for the second year in a row in reflection of oil market developments and security issues.

The world trade volume in goods and services is estimated to have grown by approximately 2.9 per cent in 2002.

International tourism in 2002 increased by an estimated 3.6 per cent. The World Tourism Organization (WTO-OMT) estimates that approximately 715 million tourists travelled to foreign countries in 2002 (Figure 2).



Scheduled Operations

In 2002, the total scheduled traffic carried by the airlines of the 188 Contracting States of ICAO amounted to a total of about 1 615 million passengers and some 30 million tonnes of freight. Both the overall and international passenger/freight/mail tonne-kilometres performed increased by some 2 per cent over 2001 (Tables 1 and 2). Figure 3 shows the trend from 1993 to 2002.

In 2002, capacity was reduced to the extent that average load factors increased to reach their highest ever annual levels (Figure 4); the average passenger

and weight load factors on total scheduled services (domestic plus international) increased to 71 and 61 per cent, respectively (Table 3).

On a regional basis, some 33 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, Latin American and the Caribbean airlines and Middle East airlines 4 per cent each and African airlines 2 per cent (Table 4).

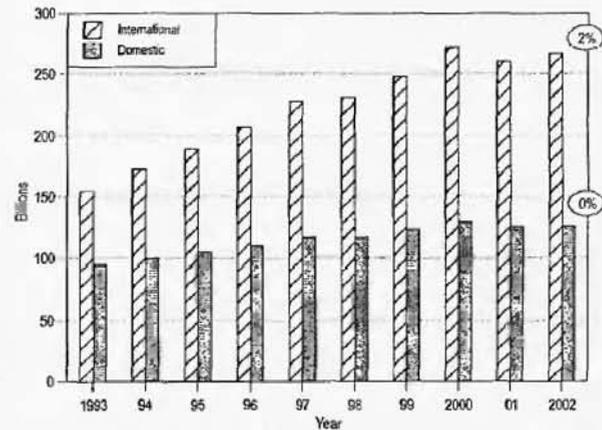
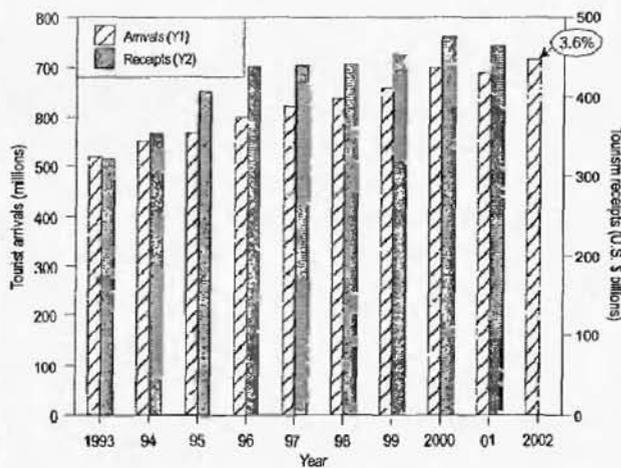


Figure 3. Scheduled traffic tonne-kilometres performed, 1993-2002



Note.— 2002 receipts were not available at the time of publication.
Source: WTO-OMT

Figure 2. International tourism receipts and arrivals U.S. dollars, 1993-2002

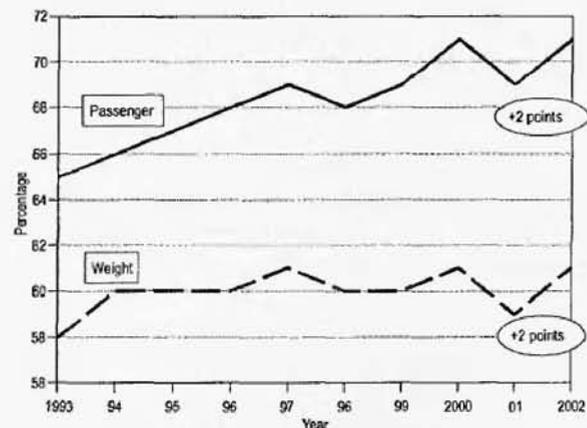


Figure 4. Scheduled traffic achieved load factors, 1993-2002

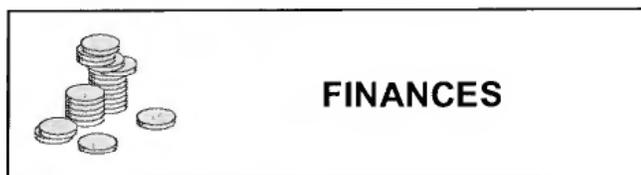
Data for individual countries (Tables 5 and 6) show that in 2002 about 47 per cent of the total volume of scheduled passenger, freight and mail traffic was accounted for by the airlines of the United States, Japan, the United Kingdom and Germany (31, 6, 5 and 5 per cent, respectively). On international services, some 37 per cent of all traffic was carried by the airlines of the United States, the United Kingdom, Germany and Japan (17, 7, 7 and 6 per cent, respectively).

Non-scheduled Commercial Operations

It is estimated that in 2002 total international non-scheduled passenger-kilometres decreased by about 12 per cent compared with 2001, with the non-scheduled share of overall international air passenger traffic decreasing from 13.5 to about 12 per cent (Figure 5 and Table 7). Domestic non-scheduled passenger traffic represents only about 5 per cent of total non-scheduled passenger traffic and around 1 per cent of total domestic passenger traffic worldwide.

Airport Operations

In 2002, the 25 largest airports in the world handled some 1 022 million passengers, according to preliminary estimates (Table 8). During the same period, the airports concerned (14 of which are located in North America, 6 in Europe and 5 in Asia) also handled some 11 million commercial air transport movements.



FINANCES

Airlines

Preliminary estimates for 2002 indicate that the world's scheduled airlines as a whole experienced a significant operating loss for the second year in succession after 8 consecutive years of operating profits (Table 9 and Figure 6).

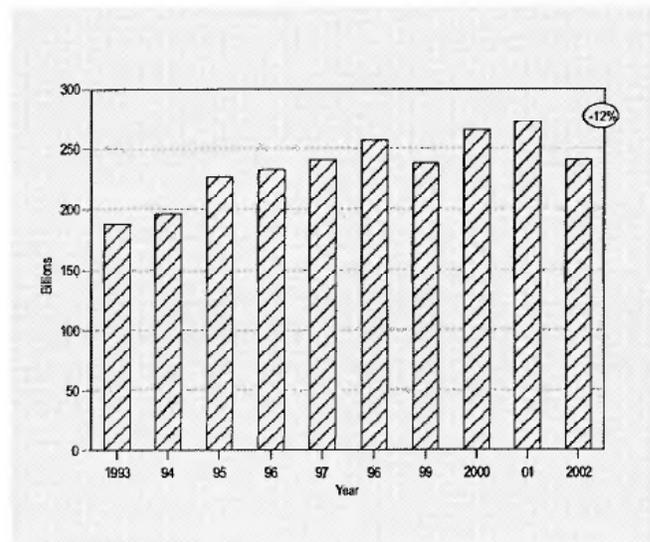


Figure 5. International non-scheduled traffic passenger-kilometres performed, 1993–2002

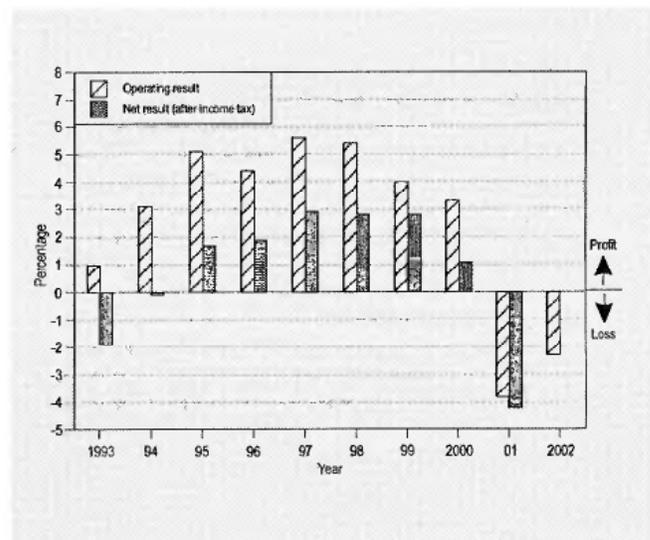


Figure 6. Scheduled airlines operating and net, 1993–2002

The operating revenues of scheduled airlines of ICAO Contracting States are tentatively estimated at \$312 500 million¹ in 2002 and operating expenses for the same airlines at \$319 800 million, giving an operating loss of 2.3 per cent of operating revenues. This follows an operating loss of 3.8 per cent in 2001.

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

Per tonne-kilometre, operating revenues decreased from 74.9 cents in 2001 to an estimated 74.5 cents in 2002, while operating expenses decreased from 77.8 cents to an estimated 76.2 cents.

Airports and Air Navigation Services

As with air carriers, the financial situation of airports and providers of air navigation services, especially in North America and Europe, continued to be affected by the downturn in air traffic following the events of 11 September 2001. Providers had to seek a balance between the financial problems of airlines and the need to increase airport and air navigation services charges because of less than anticipated traffic. A decline in revenues from non-aeronautical activities contributed to a deterioration in the financial situation of airports.



Carriers

On the basis of schedules published in multilateral airline schedule guides, it is estimated that at the end of 2002 there were approximately 806 air carriers worldwide providing international and/or domestic scheduled passenger services (including 76 air carriers providing both scheduled passenger and all-freight services) and about 90 operating only scheduled all-freight services. The total number of 896 air carriers operating in 2002 compares closely with the 894 in 2001.

The trend of privatization of government-owned airlines continued in 2002. Five airlines achieved their privatization aims. Another 40 government-owned carriers were reported to be in various stages of plans for partial or full privatization. In several cases, however, privatization plans were deferred or postponed because of the complexities encountered in the process, or the economic situation of the airlines concerned, or owing to other circumstances. In contrast to the general

trend, government shareholdings in several privatized carriers were increased in order to rescue the carriers from imminent collapse.

Airports and Air Navigation Services

The development towards increased autonomy in the provision and operation of airports and air navigation services slowed down after a period of several years of commercialization and privatization projects in all regions of the world, particularly in the airport field.

Aircraft

Between 1993 and 2002, the reported number of commercial air transport aircraft in service increased by about 34 per cent, from 15 554 to 20 877 (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 12 552 to 16 668, over the same period (Figure 7 and Table 10).

In 2002, 497 jet aircraft were ordered (compared with 990 in 2001) and 999 were delivered (compared with 1 219 in 2001). The backlog of unfilled orders at the end of 2002 was 3 407 aircraft, compared with 3 799 at the end of 2001.

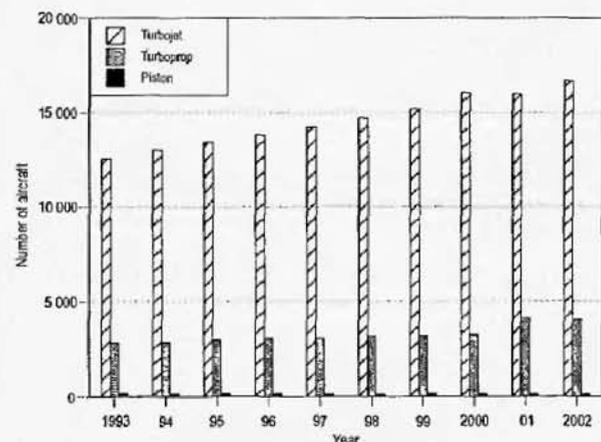


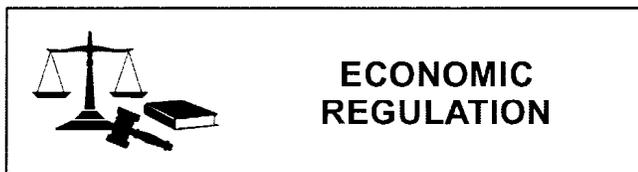
Figure 7. Total commercial air transport fleet 1993–2002

The financial commitment in terms of jet aircraft orders placed with the major aircraft manufacturers in 2002 is estimated to be about \$40 billion.

The number of turboprop aircraft ordered in 2002 was 32, with 69 aircraft delivered during the year.

Most active aircraft type transactions, 2002

<i>Aircraft</i>	<i>Orders</i>	<i>Deliveries</i>	<i>Backlog</i>
Airbus 319	143	85	370
Boeing 737	118	212	757
Canadair RJ	44	186	389
Airbus 320	43	116	469
Embraer RJ	43	131	408



During the year, a total of 91 bilateral air services agreements were reportedly concluded or amended by 69 States. Continuing a trend, over 70 per cent of these agreements and amendments contained some form of liberalized regulatory arrangements. For example, 6 “open skies” agreements were concluded among 10 countries; these agreements provide for full market access without restrictions on designations, route rights, capacity, frequencies, codesharing and tariffs, although 2 of 6 agreements have a phase-in or grace period for the application of some provisions. By December 2002, over 85 open skies agreements had been concluded (28 in the last 3 years) involving approximately 70 countries. Sixty per cent of the agreements involved developing countries.

Air transport liberalization activity also continued at the regional level. 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 2002, there were at least 11 such arrangements with several other potential

arrangements in the pipeline. During the year, there were several noteworthy regional developments. First, 14 member States of the Pacific Islands Forum concluded, in October, the negotiation of the Pacific Islands Air Services Agreement (PIASA), which will progressively create a single aviation market in the subregion after formal endorsement by the member States. Second, Peru and Samoa joined, in May and November respectively, the Multilateral Agreement on the Liberalization of International Air Transportation known as “Kona” open skies agreement, which had been signed originally by 5 members (Brunei Darussalam, Chile, New Zealand, Singapore and the United States) of the Asia Pacific Economic Cooperation Forum (APEC) in 2001. Third, the bilateral agreements between member States of the European Union (EU) and Switzerland officially came into force in July after completion of the ratification process by all the member States; the agreements, one of which covers air transport, integrate Switzerland into the European Economic Area (EEA). The Council of the EU completed, in December, the enlargement negotiations with 10 Central and Eastern European States, which would bring them into the EU in 2004.

Within the EU, there was a significant development relating to common foreign EU policy. In November, the European Court of Justice ruled on several cases brought in 1998 by the European Commission against 8 member States which had concluded or amended bilateral air services agreements (7 of them “open skies” agreements) with the United States. The judgements affirmed the ability of the member States to enter into bilateral agreements with third countries to the extent that these do not affect European Community rules on air transport, but found that some of the provisions in these bilateral agreements infringed the European Community’s exclusive external competence as regards air fares and computer reservation systems (CRS). The Court also found that clauses regarding national ownership and control of airlines infringed European Community law on Community-wide freedom of establishment. Following the Court’s judgement, the European Commission indicated it would request the European Council to issue urgently a mandate for the European Commission to open negotiations for a Community-wide air services agreement with the United States as well as similar agreements with Japan and the Russian Federation.

The Organization for Economic Co-operation and Development (OECD) completed its examination of the liberalization of air cargo services in January, and subsequently published a Bilateral Protocol to existing air service agreements together with a possible Multilateral Agreement.

The World Trade Organization (WTO-OMC) continued its mandated review of the Annex on Air Transport Services of the General Agreement on Trade in Services (GATS), which covers 3 so-called “soft” rights, namely: aircraft repair and maintenance, selling and marketing of air transport, and CRS services. At the fourth session of the review in March, views in the Council for Trade in Services (CTS) were divided as to the continuation of the review and the possible expansion of the GATS coverage. The CTS discussed a proposal for Members to make more substantial commitments on aircraft repair and maintenance as well as to strengthen existing commitments in view of the importance and potential that this holds for developing countries.

At the national level, several States launched a review process of their overall air transport policies in the light of the global trend toward increased liberalization. For example, Canada announced in May a new multiple designation policy for international scheduled air services, which removed restrictions on the number of Canadian carriers designated to serve foreign markets. Also in May, India initiated a review of its bilateral policy with a view to attracting more foreign carriers to the country. In July, Mozambique announced that it would lift the monopoly status granted to LAM Mozambique Airlines, allowing other carriers to operate internationally. In August, China increased the foreign investment ceiling for Chinese air carriers from 35 to 49 percent.

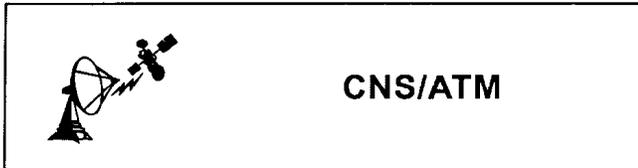
Airline alliances, particularly those involving major carriers, continued to attract attention from regulatory authorities because of their potential effect on market access, competition and consumer interest, although regulatory treatment of them varied. For example, the European Commission approved an intra-European alliance agreement and 2 transatlantic alliance agreements between European and United States airlines. In the United States, the Department of Transportation (DOT) approved and granted antitrust immunity to 5 alliance agreements between United States airlines and foreign airlines, 1 of which was subject to the

achievement of an “open skies” agreement between the United Kingdom and the United States. The DOT also tentatively approved an agreement filed by American Airlines and British Airways in January, but subsequently dismissed it at the carriers’ request because the carriers were not prepared to accept the conditions imposed by the DOT. In addition, the DOT allowed an extensive codesharing agreement between United Airlines and US Airways in October, and was continuing to review an agreement among Continental Airlines, Delta Air Lines and Northwest Airlines.

Many States continued to provide varying forms of State aids to their national airlines facing financial difficulties caused mainly by the economic slow-down and the impact of the events of 11 September 2001 in the United States. For example, Brazil approved, in September, a comprehensive aid package for Brazilian carriers, which includes a provision for \$320 million in tax relief. The European Commission approved, in June, the Italian Government’s plan for a \$1.29 billion capital increase for Alitalia, which would be partly underwritten by the private sector. The United States Government provided over 400 United States carriers with about \$4.6 billion direct financial compensation for losses incurred following the events of 11 September 2001. It also provided 5 United States carriers with a federal loan guarantee under the Air Transportation Safety and System Stabilization Act. The United States Bankruptcy Code was invoked to provide relief to United States carriers, including US Airways and United Airlines, that filed for protection under its provisions.

E-commerce technology continued to impact 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 some low-cost carriers, ticket sales are primarily being made online. The use of the Internet, through third-party providers and directly by consumers and other businesses, has enabled airlines to reduce considerably distribution costs, including agency commissions and CRS booking fees. In March, major United States and Canadian carriers eliminated base commission payment for tickets for travel within Canada and the United States. The trend to reduce or eliminate commissions has also

been growing in Asia and the Pacific, Europe and Latin America. To address changes in airline product distribution, the United States DOT invited comments from interested parties on the proposed final revisions to its CRS rules, which would eliminate several provisions in the existing rules; it concluded that rules regulating Internet use were unnecessary at this stage.



Planning and implementation of communications, navigation, surveillance/air traffic management (CNS/ATM) systems continued through the individual and combined efforts of Contracting States and the work of several Planning and Implementation Regional Groups (PIRGs). Specific CNS/ATM system elements and implementation plans continued to be integrated into regional air navigation plans. Additionally, significant efforts were made to conduct cost-benefit analyses and develop business cases in order to facilitate the implementation of new systems.

ICAO will convene the Eleventh Air Navigation Conference in Montréal in September 2003. This Conference will assess a new global ATM operational concept developed by ICAO and review ATM safety-related work and new methods to measure performance to ensure the future ATM systems meet the expectations of the aviation community. It will also address capacity-enhancement measures. In the field of CNS, the Conference will address spectrum management, aeronautical navigation (terrestrial and satellite), and air-ground communications.

Substantial progress was made in many Regions toward the implementation of reduced separation minima based on CNS/ATM systems and concepts. In this context, a reduced vertical separation minima (RVSM) was introduced in parts of the European and North American Regions. Planning continued for the introduction of RVSM in the Middle East and CAR/SAM Regions and the expansion of the airspace in which RVSM applies in the Asia and the Pacific Region.

Operational use of controller-pilot data link communications (CPDLC) in accordance with ICAO provisions commenced in one State, and programmes to implement the ATS message handling system (AMHS) progressed in some ICAO Regions. Further, automatic dependent surveillance (ADS) and ADS-broadcast (ADS-B) trials were conducted in several ICAO Regions. This, together with extensive work on the development of ADS procedures aimed at using ADS for separation purposes, should lead to the application of ADS in oceanic airspace for conformance monitoring and separation purposes. These developments should eventually lead to more efficient utilization of the airspace while increasing capacity.

Communications

Work continued on enhancements of existing ICAO Standards and Recommended Practices (SARPs) for air-ground data links on the basis of ongoing system implementation. Detailed technical specifications were published in the *Manual on VHF Digital Link (VDL) Mode 3* (Doc 9805)² and the *Manual on Air Traffic Services (ATS) Ground-Ground Voice Switching and Signalling* (Doc 9804)². Activities on the assessment of the need for standardization of the universal access transceiver (UAT) continued, including the development of a comparative analysis of ADS-B data links. In preparation for the Eleventh Air Navigation Conference, a review of future requirements for air-ground data links was initiated.

Navigation

Progress continued in a number of States and international organizations on the development and implementation of global navigation satellite systems (GNSS).

Development of satellite-based augmentation systems (SBAS) progressed with the objective of achieving operational capability in the 2003-2004 time frame. This form of augmentation is expected to support the use of GNSS for all phases of flight including approach with vertical guidance (APV). Ground-based augmentation systems (GBAS), which support Category I operations and have the

2. French, Spanish and Russian in preparation

potential to support Category II/III precision approach applications, also continued to be developed and tested. The latter type of augmentation, with enhancements enabling GBAS positioning service, may be used by some States in support of RNAV operations in terminal areas. A number of additional States approved the global positioning system (GPS) for supplemental or primary use for some operations and types of airspace.

Implementation of GNSS (mainly GPS) based non-precision approach application (NPA) continued in ICAO Regions. These activities were supported by the development of procedures and criteria for APV and Category I operations based on SBAS and GBAS, respectively.

Surveillance

Progress continued during the year on the improvement of surveillance capabilities. This included the further development of the airborne separation assurance system (ASAS) and automatic dependent surveillance-broadcast (ADS-B) concepts. Discussions continued on the selection of a radio frequency (RF) link for ADS-B. Mode S extended squitter has gained acceptance in at least 2 regions. Also, VDL Mode 4 and UAT are being considered for use in some regions. Implementation of modern surveillance systems progressed in most regions.

Air Traffic Management

As part of the evolutionary process leading to the implementation of a seamless global air traffic management (ATM) system, air traffic control (ATC) systems around the world continued to be updated with modern equipment capable of supporting advanced ATM concepts.

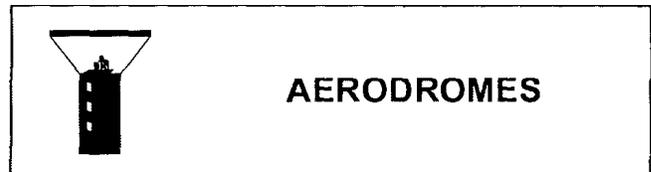
Progress was made in the development of airspace planning and ATM infrastructure requirements in line with the ICAO Global Plan. PIRGs continued to develop ATM implementation plans with associated timelines and evolution tables.

Several concepts relating to the operation of ATM systems were advanced. The ICAO Air Traffic Management Operational Concept Panel (ATMCP) finalized a global ATM operational concept. This concept is visionary in scope and is not limited to the present level of technology. Most importantly,

the ATM operational concept should lead to the realization of the benefits expected from CNS/ATM systems and will provide the basis for cost-benefit analyses associated with the introduction of ATM systems. The ATM operational concept was presented to the Air Navigation Commission and will be reviewed at the Eleventh Air Navigation Conference to be convened from 22 September to 3 October 2003. The Conference will also address safety and performance issues related to the future ATM system.

Economic Aspects

The Conference on the Economics of Airports and Air Navigation Services (ANSCConf 2000), which was held in Montréal from 19 to 28 June 2000, recommended that ICAO extend the scope of its study on the allocation of GNSS costs among user groups, in coalition with non-aeronautical users and taking into account all possible methods for the allocation of costs, including the “requirements-driven method”. Work on this is now under way.



Studies are nearing completion on airport pavement design and evaluation procedures for analysing complex loading by new larger aeroplanes with 6 or more wheels per main landing gear strut such as the Airbus A380 and Boeing B777. The full-scale pavement testing research projects in 2 States, on the subject of complex loadings, also progressed.

The growing trend towards airport autonomy has safety implications. Consequently, States need to ensure that appropriate legislation and safety regulations are in place. In this context, Amendment 4 to Annex 14 — *Aerodromes* (Volume I) introduced a new requirement for aerodromes to be certified by States. A *Manual on the Certification of Aerodromes* (Doc 9774) was published to assist States in meeting their obligations under the *Convention on International Civil Aviation*. Amendment 4 also included improved specifications on rescue and fire fighting, particularly on rescue in water and on difficult terrain, and

emergency response times within the airport boundary. ICAO is facilitating the implementation in States of the new aerodrome certification requirements through workshops in a number of regions, and is planning to hold additional workshops conjointly with the Airports Council International (ACI).



AERONAUTICAL METEOROLOGY

The increased use of improved automatic meteorological observing systems in States has prompted requests for a review by ICAO of the role of these systems in the provision of observations for aviation. The use of meteorological information in the terminal area to support measures to increase airport capacity continue to be studied by States, in particular in the European Region. In this context, the development of a new meteorological report is being examined. Renewed interest has been shown in a number of States in conducting research on improving the quality and timeliness of forecasts of icing and turbulence.

Progress continued in the computer preparation of global forecasts of significant weather (SIGWX) by the world area forecast centres (WAFCs). As a result, high-level SIGWX charts for global coverage were prepared by means of interactive computer workstations by the WAFCs. Very small aperture terminals installed in more than 140 States receive data and products from the 3 ICAO satellite broadcasts. These broadcasts provide global world area forecast system (WAFS) forecasts and operational meteorological (OPMET) information, such as aviation routine weather reports (METARs), aerodrome forecasts (TAFs) and information concerning en-route weather phenomena which may affect the safety of aircraft operations (SIGMETs), directly to States and users. The implementation of the satellite broadcasts and the provision of SIGWX forecasts by the WAFCs have permitted the closure of all 15 regional area forecast centres.

Work continued in States responsible for volcanic ash advisory centres (VAACs) to develop and issue graphical volcanic ash advisories for provision to area control centres and meteorological watch offices.



SEARCH AND RESCUE

The COSPAS-SARSAT alert and detection system was improved. The existing low altitude earth orbiting (LEOSAR) constellation of satellites was complemented with 3 geostationary (GEOSAR) satellites (plus 1 spare) providing almost immediate distress alerts for 406 MHz beacons transmitting in their field of view. To take full advantage of these GEOSAR alerting facilities, some 406 MHz beacons now in production have a built-in satellite navigation receiver or an interface for external navigation data input and are capable of transmitting position data in the 406 MHz digital message. A benefit of 406 MHz emergency locator transmitter (ELT) usage is that, while there is an incidence of false alerts, it is at a much lower rate than occurs on 121.5 MHz. The source of false alerts on 406 MHz is solely the ELTs themselves, as distinct from the false alerts on 121.5 MHz which originate from a variety of interfering sources.

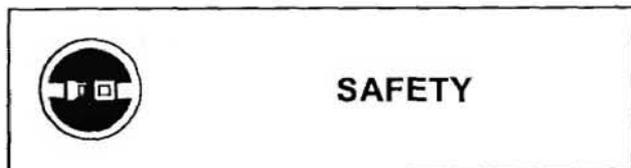
From September 1982 to December 2001, the COSPAS-SARSAT system contributed to the rescue of more than 14 250 persons in over 4 100 aeronautical, maritime and terrestrial distress situations. The International COSPAS-SARSAT Programme Agreement between Canada, France, the former Union of Soviet Socialist Republics and the United States was signed in Paris on 1 July 1988 and entered into force on 30 August 1988. It permits use of the system by all States on a long-term, non-discriminatory basis. States which are not Party to the Agreement can participate in the system either as user-States or ground segment providers. The Secretary General of ICAO is one of the Depositories of the Agreement.



CONGESTION

Ground-side congestion in airports was addressed through the Facilitation Programme on 3 fronts. First, the Council adopted a major amendment to

Annex 9 — *Facilitation* (Eleventh Edition, July 2002), which includes new and revised SARPs supporting the use of information and communications technology (ICT) and risk management to facilitate traffic flows through border controls in the airport. Second, ICAO published updated specifications for *Size 1 and Size 2 Machine Readable Official Travel Documents* (Doc 9303, Part 3, Second Edition), offering States the means to issue travel and identity documents as globally interoperable, secure, high-technology cards for applications in machine-assisted passenger processing. Third, the Secretariat supported the IATA Simplifying Passenger Travel initiative, which envisages a “one-stop check” process enabled by ICT, and collaborated with the World Customs Organization (WCO) to update the guidelines for advance passenger information, an important component of a streamlined passenger processing system.



The aircraft accidents covered under the heading “Safety” exclude incidents caused by acts of unlawful interference, which are shown under the section on Security.

Scheduled Operations

Preliminary information on aircraft accidents involving passenger fatalities in scheduled air services worldwide shows that in 2002 there were 14 aircraft accidents with passenger fatalities involving aircraft with a certificated maximum take-off mass of more than 2 250 kg (including one aircraft operating all-cargo services with one passenger on board). The number of passenger fatalities involved was 791. This compares with 13 fatal accidents and 577 passenger fatalities in 2001 (Table 11). Between 2001 and 2002, there was almost no change in traffic, hence the number of passenger fatalities per 100 million passenger-kilometres increased to 0.025 from 0.02 in 2001. Similarly, the number of fatal aircraft accidents per 100 million aircraft-kilometres flown increased to 0.06 from 0.05 in 2001 and the number of fatal aircraft accidents per 100 000 landings increased to 0.07 from 0.06 in 2001 (Figure 8).

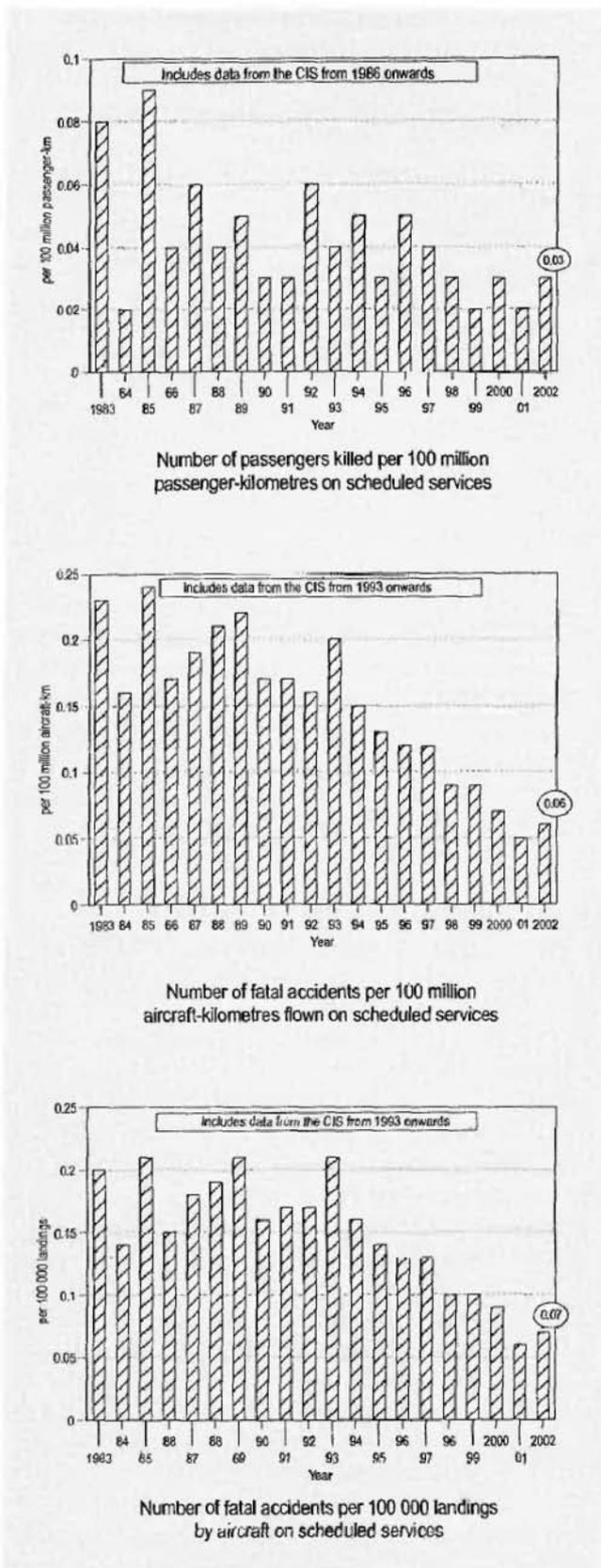


Figure 8. Aircraft accident statistics 1983–2002

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 about 98 per cent of the total volume of scheduled traffic (in terms of passenger-kilometres performed), there were 7 accidents in 2002 with 704 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for about 2 per cent of the scheduled traffic volume, there were 7 accidents with 87 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 19 accidents involving passenger fatalities on aircraft with a maximum certificated take-off mass of more than 2 250 kg in 2002 (including 3 aircraft operating all-cargo services with passengers on board) compared with 29 in 2001. These accidents accounted for 201 passenger fatalities in 2002 compared with 204 in 2001.

In non-scheduled operations performed with aircraft of more than 9 000 kg take-off mass, whether by scheduled airlines or non-scheduled operators, there were 4 accidents involving 121 passenger fatalities in 2002.



SAFETY OVERSIGHT

The ICAO Universal Safety Oversight Audit Programme (USOAP), established in January 1999, continued its audit activities. By the end of the year, 180 Contracting States and 5 territories had been audited, and 67 States had received an audit follow-up mission, with the objective of validating the implementation of the corrective action plans submitted by the States concerned. The analysis conducted using the Audit Findings and Differences Database (AFDD) has enabled the identification of safety oversight-related deficiencies and the

prioritization of actions required to resolve safety concerns at a global, regional, State or group of States level.

The ICAO Safety Oversight Audit Section was certified under ISO standard *Quality Management Systems — Requirements: ISO 9001:2000*. Implementation of the quality management system will result in the streamlining of the activities of the section, increasing the effectiveness and efficiency of the Programme.

Pursuant to Assembly Resolution A33-8, the ICAO Universal Safety Oversight Programme will be expanded to cover Annex 11 — *Air Traffic Services*, Annex 13 — *Aircraft Accident and Incident Investigation* and Annex 14 — *Aerodromes*. Audits of Contracting States in these areas will begin in 2004.



HUMAN FACTORS

The international aviation community continued to focus on the Human Factors issues involved in runway incursions, with international events held in various Contracting States.

The first Threat and Error Management (TEM) Workshop was held in San Salvador, El Salvador on 30 April and 1 May with the objective of presenting state-of-the-art industry knowledge of TEM training.

The second ICAO regional seminar on the Line Operations Safety Audit (LOSA) was held in Dubai from 14 to 16 October. LOSA is an emerging methodology to collect safety information by routine monitoring of normal airline operations.



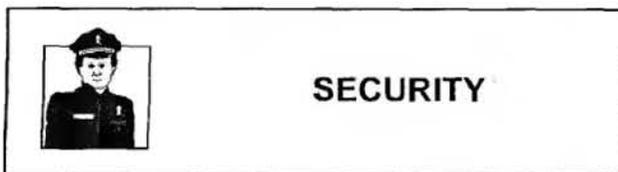
PERSONNEL LICENSING AND TRAINING

Since January 2002, 2 centres have joined the TRAINAIR Programme, bringing the total number of members to 39. The member civil aviation

training centres' course development activities continued to expand. As of December, 134 Standardized Training Packages (STPs) were completed or were under development by members.

The USOAP identified a significant need for training Government Safety Inspectors (operations and airworthiness). Standardized Training Packages (STPs) were developed on this topic in cooperation with the United States Federal Aviation Administration (FAA) using the TRAINAIR methodology. While there are a substantial number of inspectors to be trained worldwide, only a few States can justify the human and financial investment involved in establishing training capabilities in this area based on national needs alone. To ensure that the courses are internationally available within all ICAO Regions and meet a uniform quality level throughout the world, a network of training centres was established that provide "ICAO-endorsed Government Safety Inspector training", based on the STPs. States' centres that conduct this training must meet specific requirements established by ICAO, provide regular reports, and receive regular assessments by ICAO to ensure continued compliance with the requirements. The FAA is developing additional Government Safety Inspector STPs, in cooperation with ICAO, to meet the needs identified through the USOAP.

A new part of the ICAO *Training Manual* (Doc 7192), Part F-1 — *Meteorology for Air Traffic Controllers and Pilots*, was published.³



During the reporting period, 21 acts of unlawful interference were recorded. These acts were 2 unlawful seizures, 6 attempted seizures, 8 facility attacks, 2 attempted facility attacks, 1 in-flight attack, 1 attempted sabotage and 1 unlawful act against the safety of civil aviation (Table 12). These acts are included in the annual statistics to assist in the analysis of trends and developments (Figure 9).

3. Spanish in preparation.

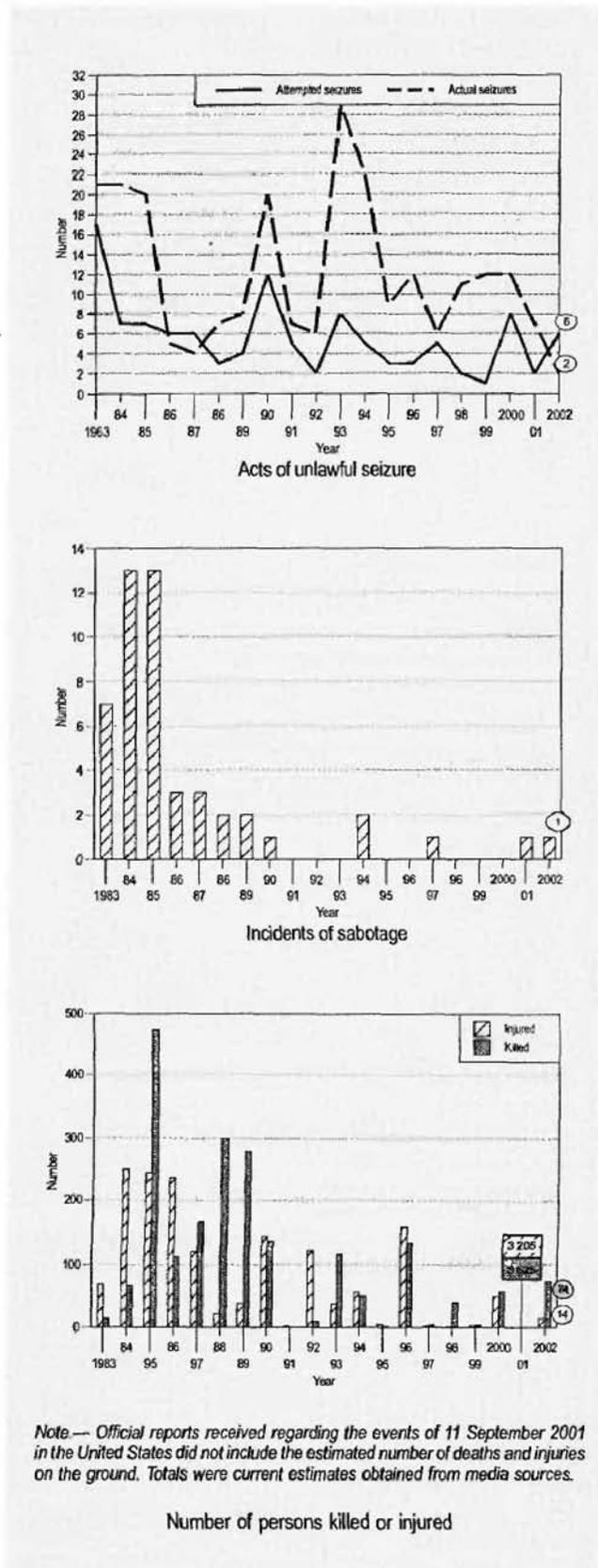


Figure 9. Aviation security statistics 1983-2002

A High-level, Ministerial Conference on Aviation Security was held at ICAO Headquarters on 19 and 20 February. The Conference endorsed a global strategy for strengthening aviation security worldwide and issued a public declaration on aviation security. Based on the Conference's recommendations, the Council, in June, approved the ICAO Aviation Security Plan of Action, which includes regular, mandatory, systematic and harmonized audits to enable the evaluation of aviation security in place in all Contracting States. The plan of action also includes identification, analysis and development of an effective global response to new and emerging threats; and strengthening of the security-related provisions in the Annexes to the *Convention on International Civil Aviation*, notably to provide for protection of the flight deck.

The Council subsequently established an ICAO Universal Security Audit Programme (USAP) relating to, inter alia, airport security arrangements and civil aviation security programmes with a view to assessing the level of implementation by States of security-related Standards. The objective of the audit programme is to enhance aviation security further by identifying deficiencies in each State and providing suitable recommendations for their resolution. In order to assist in the implementation of the audit programme, 2 auditor courses, consisting of a 2-week basic course and a 1-week conversion course, were developed based upon the *Security Audit Reference Manual (SARM)* and the sixth edition of the *ICAO Security Manual*. The first aviation security audit took place in Uganda in November.

The Council approved the International Explosives Technical Commission's (IETC) recommendation to amend the Technical Annex to the *Convention on the Marking of Plastic Explosives for the Purpose of Detection* by increasing the minimum concentration level of 2,3-Dimethyl-2,3-dinitrobutane (DMNB) detection agent to 1.0 per cent by mass. In accordance with the Council decision, a letter was sent to States parties to the Convention, notifying them of the proposed amendment pursuant to Article VII, paragraph 1 of the Convention and inviting States to comment.



WARSAW SYSTEM

By the end of 2002, the *Convention for the Unification of Certain Rules for International Carriage by Air*, done at Montréal on 28 May 1999, had been ratified by 25 States. The Convention requires 30 ratifications to enter into force.

ASSISTANCE IN THE FIELD OF AVIATION WAR RISK INSURANCE

In light of Resolution A33-20: *Coordinated approach in providing assistance in the field of aviation war risk insurance*, the Special Group on Aviation War Risk Insurance (SGWI/2) (Montréal, 28–30 January) recommended the establishment of an international mechanism that would provide aviation war risk coverage with multilateral government backing for the initial years.

Further to the review of this proposal by the Council Study Group on Aviation War Risk Insurance (CGWI), the Council, in May, approved in principle the establishment of this Global Scheme, including a draft Participation Agreement to be signed by participating States. The President of the Council informed Contracting States accordingly, by State letters dated 6 June, 12 July and 6 November, and sought from them an expression of intent to participate, to be received by 14 February 2003. The Secretariat was tasked to finalize the Participation Agreement, with the assistance of an informal group of experts and the CGWI. The Global Scheme will come into effect when the number of Contracting States representing 51 per cent of annual budget contribution rates to ICAO have agreed to participate. Such participation would require the provision of a guarantee, but no payment by Contracting States upon joining.



ENVIRONMENTAL PROTECTION

Following the adoption of a new noise standard and a substantial revision of the *Consolidated statement of continuing ICAO policies and practices related to environmental protection* (Assembly Resolution A33-7) in 2001, ICAO's work in 2002 on both aircraft noise and aircraft engine emissions was primarily focussed on preparations for the next meeting of the Committee on Aviation Environmental Protection (CAEP) in early 2004.

Concerning noise, one of the principal tasks was the development of guidance material to assist States in implementing the balanced approach to noise management that the Assembly endorsed. This consists of 4 principal elements, namely, noise reduction at source (quieter aircraft), land-use planning and management around airports, noise abatement operational procedures, and operating restrictions. Work continued on the development of provisions for the re-certification of aircraft to the new noise Standards contained in Annex 16 — *Environmental Protection* — Volume I — *Aircraft Noise*, Chapter 4.

Concerning emissions, emphasis was placed on the further development of technology and related ICAO emissions Standards, notably the permitted levels for oxides of nitrogen, and on the promotion of operational measures aimed at reducing fuel burn and emissions. In close cooperation with the United Nations Framework Convention on Climate Change (UNFCCC), work continued on analysing the possible use of market-based measures such as an emissions-trading system, voluntary measures and emissions-related levies.

In August, information on ICAO's environmental activities was brought to the attention of the World Summit on Sustainable Development, which was held in Johannesburg.



SMOKING RESTRICTIONS

Complete smoking bans are now in place by all passenger carriers in Australia, New Zealand, the Nordic countries and North America, while a large majority of all flights in Asia, Africa, Europe and the Middle East are also smoke free. Implementation of Assembly Resolution A29-15 — *Smoking restrictions on international passenger flights*, continues.



TECHNICAL CO-OPERATION

The ICAO Technical Co-operation Programme for 2002 was valued at \$71.2 million, of which \$64.6 million (or 91 per cent) was implemented.

During the year, the Technical Co-operation Bureau (TCB) executed 105 projects in 68 developing countries and a total of 12 new and revised large-scale projects were approved. The TCB employed 418 experts from 40 countries to work in its field projects. A total of 428 fellowships were awarded and procurement expenditures for field projects totalled \$39.16 million.

ICAO, in conjunction with the United Nations Department of Peacekeeping Operations (DPKO), finalized an agreement for a large-scale project aimed at ensuring the safety of the DPKO air operations in the Democratic Republic of the Congo, as well as safeguarding and enhancing the aeronautical infrastructure in that country. The \$18.7 million project, the largest ever signed in the Africa Region, represents a new technical cooperation association with a major presence in terms of air operations in a number of developing States throughout the world. Under the programme, ICAO's Technical Co-operation Bureau will design

and monitor rehabilitation work at 13 airports. It will also prepare specifications and monitor the installation and commissioning of a number of navigation aids in a country that is severely lacking operational nav aids. Finally, ICAO will provide technical support for the introduction of GNSS equipment and procedures and will train air traffic controllers.

ICAO responded to a request from the Interim Government of Afghanistan for assistance after the ousting of the Taliban regime by fielding a mission to Kabul late in 2001 for a period of 6 months. In cooperation with the Interim Government and the combined forces Airspace Control Authority (ACA),

ICAO provided an assessment and plans for the rehabilitation of the civil aviation structure and airports throughout the country; rehabilitation work began immediately at Kabul International Airport with funding from the Department for International Development of the United Kingdom. Further rehabilitation activities at Kabul International Airport were continued through a project funded by the World Bank and the Interim Government. The project, through the procurement of essential aeronautical, navigation, communications and ground operation equipment as well as through the provision of international experts, will ensure that Kabul International Airport has safe, reliable and efficient domestic and international operations.