Documentation for the session
of the Assembly in 2001

Annual Report of the Council

1998

International Civil
Aviation Organization

Published in separate English, Arabic, French, Russian and Spanish editions by the International Civil Aviation Organization. All correspondence, except orders and subscriptions, should be addressed to the Secretary General.

Orders should be sent to one of the following addresses, together with the appropriate remittance (by bank draft, cheque or money order) in U.S. dollars or the currency of the country in which the order is placed. Credit card orders (American Express, MasterCard and Visa) are accepted at ICAO Headquarters.

International Civil Aviation Organization. Attention: Document Sales Unit
999 University Street, Montreal, Quebec, Canada H3C 5H7
Telephone: (514) 954-8022; Telex: 05-24513; Facsimile: (514) 954-6769; Sitatex: YULADYA; E-mail: sales_unit@icao.int

Egypt. ICAO Regional Director, Middle East Office, Egyptian Civil Aviation Complex,
Cairo Airport Road, Heliopolis, Cairo 11776
Telephone: (20 2) 267-4840; Facsimile: (20 2) 267-4843; Sitatex: CAICAYA

France. Directeur régional de l'OACI, Bureau Europe et Atlantique Nord, 3 bis, villa Émile-Bergerat,
92522 Neuilly-sur-Seine (Cedex)
Téléphone: (33 1) 46 41 85 85; Télécopieur: (33 1) 46 41 85 00; Sitatex: PAREUYA

India. Oxford Book and Stationery Co., Scindia House, New Delhi 110001
or 17 Park Street, Calcutta 700016
Telephone: (91 11) 331-5896; Facsimile: (91 11) 332-2639

Japan. Japan Civil Aviation Promotion Foundation, 15-12, 1-chome, Toranomon, Minato-Ku, Tokyo
Telephone: (81 3) 3503-2686; Facsimile: (81 3) 3503-2689

Kenya. ICAO Regional Director, Eastern and Southern African Office, United Nations Accommodation,
P.O. Box 46294, Nairobi
Telephone: (254-2) 622-395; Facsimile: (254 2) 226-706; Sitatex: NBOCAYA

Mexico. Director Regional de la OACI, Oficina Norteamérica, Centroamérica y Caribe,
Masaryk No. 29-3er. piso, Col. Chapultepec Morales, México, D.F., 11570
Teléfono: (52 5) 250-3211; Facsímile: (52 5) 203-2757; Sitatex: MEXCAYA

Peru. Director Regional de la OACI, Oficina Sudamérica, Apartado 4127, Lima 100
Teléfono: (51 14) 302260; Facsímile: (51 14) 640393; Sitatex: LIMCAYA

Russian Federation. Aviaizdat, 48, 1. Franko Street, Moscow 121351
Telephone: (7 095) 417-0405; Facsimile: (7 095) 417-0254

Senegal. Directeur régional de l'OACI, Bureau Afrique occidentale et centrale, Boîte postale 2356, Dakar
Téléphone: (221) 8-23-54-52; Télécopieur: (221) 8-23-69-26; Sitatex: DKRCAYA

South Africa. Avex Air Training (Pty) Ltd., Private Bag X102, Halfway House, 1685, Republic of South Africa
Telephone: (27-11) 315-0003/4; Facsimile: (27-11) 805-3649; E-mail: avex@iafrica.com

Spain. A.E.N.A. — Aeropuertos Españoles y Navegación Aérea, Calle Juan Ignacio Luca de Tena, 14,
Planta Tercera, Despacho 3. 11, 28027 Madrid
Teléfono: (34 91) 321-3148; Facsímile: (34 91) 321-3157; Correo electrónico: sscc.ventasoaci@aena.es

Thailand. ICAO Regional Director, Asia and Pacific Office, P.O. Box 11, Samyaek Ladprao, Bangkok 10901
Telephone: (66 2) 537-8189; Facsimile: (66 2) 537-8199; Sitatex: BKKCAYA

United Kingdom. Westward Digital Limited,
37 Windsor Street, Cheltenham, Glos., GL52 2DG
Telephone: (44 1242) 235-151; Facsimile: (44 1242) 584-139

3/99

Catalogue of ICAO Publications and Audio-visual Training Aids

Issued annually, the Catalogue lists all publications and audio-visual training aids currently available.

Monthly supplements announce new publications and audio-visual training aids, amendments, supplements, reprints, etc.

Available free from the Document Sales Unit, ICAO

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 1998 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 2001, 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 1998. These were the One hundred and fifty-third Session from 6 February to 20 March, with a total of sixteen meetings, one of which was held outside the Council phase; the One hundred and fifty-fourth Session from 1 May to 25 June and on 16 and 17 September, with a total of twenty-three meetings, two of which were held outside the Council phase; and the One hundred and fifty-fifth Session from 21 October to 11 December, with a total of thirteen meetings, two 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

Table of Contents

	Page
Chapter I. The Year in Summary	**1**
The world economy	1
Traffic	2
Finances	3
Commercial developments	4
Economic regulation	4
CNS/ATM	6
Aerodromes	7
Aeronautical meteorology	8
Search and rescue	8
Congestion	9
Safety	9
Human Factors	11
Training	11
Warsaw system	11
Security	12
Environmental protection	13
Smoking restrictions	13
Substance abuse	13
Technical co-operation	14
The Organization	15

ACTIVITIES AND DEVELOPMENTS IN ICAO IN 1998

Chapter II. Air Navigation	**17**
1. Introduction	17
2. Projects given special attention during 1998	17
3. Meetings	25
4. International Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS)	25
Chapter III. Air Transport	**32**
1. Introduction	32
2. Meetings	32
3. Economic analysis	32
4. Economic policy	32
5. Forecasting and economic planning	34
6. Statistics	34
7. Airport and route facility management	34
8. Communications, navigation and surveillance/air traffic management	35
9. Environmental protection	35
10. Facilitation	36
Chapter IV. Joint Financing	**37**
1. General	37
2. Review of allocation of meteorological costs to international civil aviation under the Danish and Icelandic Joint Financing Agreements	37
3. Financial data for the Danish and Icelandic Joint Financing Agreements	38
Chapter V. Technical Co-operation	**39**
1. Synopsis	39
2. Finance	44
3. Personnel	44
4. Fellowship awards	47
5. Equipment and subcontracts	47
6. UNDP and Trust Fund programmes	48
Chapter VI. Constitutional and Legal Questions	**63**
1. Introduction	63
2. Ratifications, adherences and acceptances	63
3. Legal meetings	63
4. Work programme of the Legal Committee	63
5. Privileges, immunities and facilities	65
6. Registration of agreements and arrangements	65
7. Collection of national aviation laws and regulations	65
Chapter VII. Aviation Security	**66**
1. Introduction	66
2. Committee on Unlawful Interference with International Civil Aviation and its Facilities	66
3. Mechanism for financial, technical and material assistance to States with regard to aviation security and other assistance programmes	66
4. Technical cooperation	66
5. Communication with States	68
6. Technical and legal aspects of aviation security	68

	Page
Chapter VIII. Regional Activities	69
Part I. Regional Offices	69
1. General	69
2. Air Navigation activities	71
3. Air Transport activities	80
4. Technical Cooperation activities	81
5. Aviation Security activities	84
Part II. Regional Commissions	86
1. General	86
2. African Civil Aviation Commission (AFCAC)	86
3. European Civil Aviation Conference (ECAC)	87
4. Latin American Civil Aviation Commission (LACAC)	87
Chapter IX. Relations with Other International Organizations	89
1. The United Nations	89
2. Inter-agency bodies	90
3. Specialized Agencies	91
4. Other international organizations	92
Chapter X. The Organization	95
1. The Assembly, the Council and the subordinate bodies	95
2. Structure of the organization	101
3. Personnel	101
4. Public information activities	102
5. Office automation activities	103
6. Language services, publications and library	105
7. Finance	108
8. Oversight and management review activities	110

Appendices

	Page
1. International Air Law Instruments — Ratifications and Adherences during 1998	A-1
2. Annexes to the Convention	A-5
3. The Council, Air Navigation Commission and Council Committees	A-10
4. Meetings held in 1998	A-15
5. Participation of States and international organizations in main ICAO meetings in 1998	A-17
6. Structure of ICAO Secretariat as of 31 December 1998	A-21
7. National distribution of Professional Category staff as of 31 December 1998	A-22
8. Distribution of Technical Co-operation field staff by nationality, grade and programme, 1998	A-26
9. Field personnel recruitment — 1998	A-27
10. Fellowship awards made during 1998 under ICAO programmes	A-34
11. Equipment procurement and subcontracts	A-39
12. Tables relating to Chapter I	A-42
13. Missions to States and Territories by Regional Office Staff in the Air Navigation, Air Transport, Aviation Security and Technical Cooperation Fields	A-55

Glossary

AACO. Arab Air Carriers Organization
ACAC. Arab Civil Aviation Commission
ACAS. Airborne collision avoidance systems
ACC. Area control centre
ACI. Airports Council International
ADREP. Accident and incident reporting data
ADS. Automatic dependent surveillance
ADSP. Automatic Dependent Surveillance Panel
AECI. The Spanish Agency for International Co-operations
AFCAC. African Civil Aviation Commission
AFRAA. African Airlines Association
AH-DE. Ad hoc group of specialists on the detection of explosives
AIREPS. Air reports
AIS. Aeronautical information service
AMBEX. AFI bulletins exchange
AMCP. Aeronautical Mobile Communications Panel
ANB. Air Navigation Bureau
ANC. Air Navigation Commission
AOSCF. Administrative and operational services cost fund
APANPIRG. ASIA/PAC Planning and Implementation Regional Group
APIRG. AFI Planning and Implementation Group
APT. Asia-Pacific Telecommunity
ASECNA. Agency for the Security of Aerial Navigation in Africa and Madagascar
AsMA. Aerospace Medical Association
ASP. Aeronautical surveillance plan
ATC. Air traffic control
ATM. Air traffic management
ATN. Aeronautical telecommunication network
CAA. Civil Aviation Authority
CAEP. Committee on Aviation Environmental Protection
CAMP. Civil Aviation Master Plan
CAPS. Civil aviation purchasing service
CB. Cumulonimbus
CFIT. Controlled flight into terrain
CNS/ATM. Communications, navigation, surveillance and air traffic management
COCESNA. Central American Corporation for Air Navigation Services
COMESA. Common market for Eastern and Southern Africa
COSPAS. Space system for search of vessels in distress
CPDLC. Controller-pilot data link communications
CVR. Cockpit voice recorder
DAC. Directorate General of Civil Aviation
DCA. Department of Civil Aviation
DGCA. Directorate General of Civil Aviation
DOT. Department of Transportation
EANPG. EUR Air Navigation Planning Group
EATCHIP. European ATC Harmonization and Integration Programme
ECA. Economic Commission for Africa
ECAC. European Civil Aviation Conference
ECE. Economic Commission for Europe
ECOSOC. Economic and Social Council
EDDS. Explosive device detection system
EDS. Explosive detection system
ESCAP. Economic and Social Commission for Asia and the Pacific
EU. European Union
EUROCONTROL. European Organization for the Safety of Air Navigation
FAA. Federal Aviation Administration
FAI. Fédération aéronautique internationale
FDR. Flight data recorder
FMS. Flight management systems
FSF. Flight Safety Foundation
GASP. Global aviation safety plan
GATS. General Agreement on Trade in Services
GDP. Gross domestic product
GLONASS. Global orbiting navigation satellite system
GNSS. Global navigation satellite systems
GPS. Global position system
GPWS. Ground proximity warning system
GREPECAS. CAR/SAM Regional Planning and Implementation Group
HF. High frequency
IACA. International Air Carrier Association
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
ICAN. International Commission for Air Navigation
ICC. International Chamber of Commerce
ICPO/INTERPOL. International Criminal Police Organization
ICSC. International Civil Service Commission
IFALPA. International Federation of Air Line Pilots' Associations
IFATCA. International Federation of Air Traffic Controllers' Associations
IFL. International frequency list
ILS. Instrument landing systems
IMO. International Maritime Organization
IPCC. Intergovernmental Panel on Climate Change
ISCC. Information Systems Coordination Committee
ISCS. International Satellite Communications System
ISO. International Organization for Standardization
ITF. International Transport Workers' Federation
ITU. International Telecommunication Union
JAA. Joint Aviation Authorities
JIU. Joint Inspection Unit
LACAC. Latin American Civil Aviation Commission
LAN. Local area network
LUT. Local user terminal
MCC. Mission control centre
MET. Meteorology
MIDANPIRG. MID Air Navigation Planning and Implementation Regional Group
MLS. Microwave landing system
MOTNEG. Meteorological Operational Telecommunications Network Europe — Regional Planning Group
MoU. Memorandum of Understanding
MSA. Management service agreement
MSAW. Minimum safe altitude warning
NAT SPG. NAT Systems Planning Group
OECD. Organization for Economic Co-operation and Development
OPAS. Operational assignment
OPMET. Operational meteorological information
OPS. Operations
PANS. Procedures for Air Navigation Services
PIRGs. Planning and implementation regional groups
RAC. Rules of the air and air traffic services
R/F. Radiotelephony
RNAV. Area navigation
RNP. Required navigation performance
RVSM. Reduced vertical separation minima
SADC. Southern African Development Community
SADIS. Satellite distribution system
SARPs. Standards and Recommended Practices
SARSAT. Search and rescue satellite-aided tracking
SATCOM. Satellite communication
SBAS. Satellite based augmentation system
SIGWX. Significant weather
SIP. Special implementation project
SSR. Secondary surveillance radar
STP. Standardized Training Package
TCAC. Tropical cyclone advisory centre
TF. Trust Funds
UNCTAD. United Nations Conference on Trade and Development
UNDP. United Nations Development Programme
UNEP. United Nations Environment Programme
UNFCCC. United Nations Framework Convention on Climate Change
UNGA. United Nations General Assembly
UPU. Universal Postal Union
VAAC. Volcanic ash advisory centre
VDL. VHF digital link
VNAV. Vertical navigation
VSAT. Very small aperture terminal
WAFC. World area forecast centre
WAFS. World area forecast system
WCO. World Customs Organization
WHO. World Health Organization
WMO. World Meteorological Organization
WTO. World Tourism Organization.
Y2K. Year 2000 problem

Chapter I
The Year in Summary

This chapter summarizes the principal trends and developments in civil aviation and the work of ICAO in 1998. References are made in brackets to relevant tables in Appendix 12, which provide statistics used in the diagrams broken down into further details and identify the sources and extent of coverage of these statistics.

In 1998, world gross domestic product (GDP) grew approximately 1.8 per cent in real terms (Figure 1). For the industrialized countries, GDP grew at 2.3 per cent, led by continued robust GDP growth in North America (3.5 per cent) and a steady growth path for the European Union (2.8 per cent). GDP growth for developing countries also amounted to about 2.8 per cent, which remains nominally higher than for the industrialized countries but indicates a substantially softened growth trend.

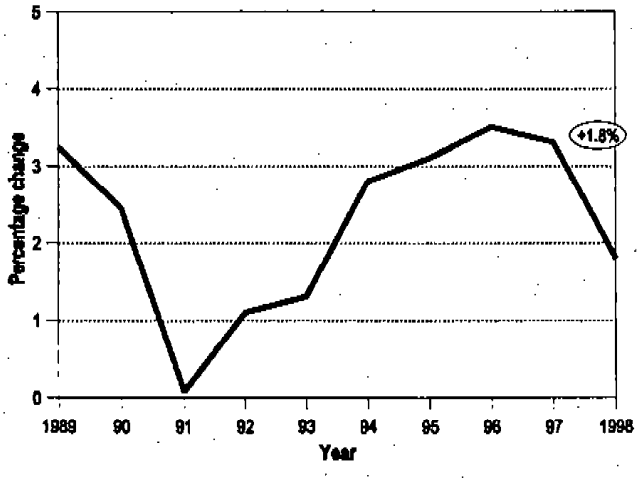


Figure 1. Development in world GDP in constant prices
year-on-year changes, 1989-1998

Asia/Pacific, the Region with the largest share in the world economy, experienced a continued and substantial slowdown of its GDP growth, almost 1.0 per cent in 1998. Developing economies in Asia/Pacific, accounting for almost two-thirds of the Region's output, made a significant contribution as their average GDP grew at 2.6 per cent, but this masked significant differences between countries. While China's GDP growth led again at 7.4 per cent, several South-East Asian economies suffered from mild or even sharp recessions. Japan went from slow growth in recent years into a recession, seeing its GDP decline by 2.8 per cent, and Asia's four newly industrialized economies also showed a recession (2.6 per cent GDP decline on average) after a long prosperous period. In contrast, Australia's economy maintained steady growth at around 4.5 per cent.

African economies remained stable with a 3.6 per cent GDP increase on average. Most other Regions showed a softened economic development. Europe achieved an average GDP growth of 2.1 per cent. Although the European Union and the recovery in countries of Eastern and Central Europe (2.5 per cent growth) were strong stabilizing factors, the decline in the Commonwealth of Independent States, particularly recession in the Russian Federation (6 per cent decline), had a weakening impact. Another Region that exhibited a much slower GDP growth, at around 2.5 per cent, was Latin America and the Caribbean. Finally, the Middle East performed slightly stronger than the world average at 3.3 per cent growth.

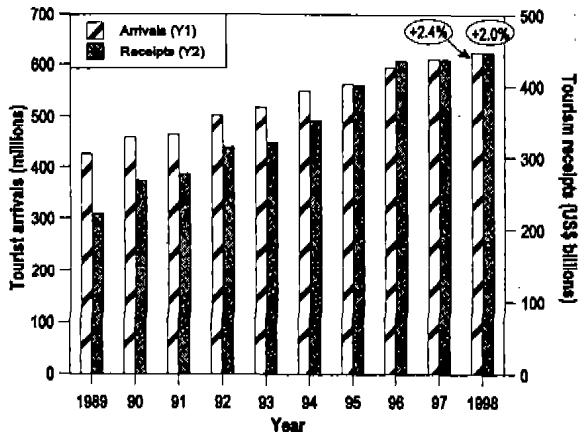


Figure 2. International tourism receipts and arrivals
U.S. dollars, 1989-1998

World trade volume in goods and services is estimated to have grown at about 4 per cent in 1998, compared to almost 10 per cent growth in recent years (7.5 per cent in 1997). This development reflects the impact of a weakening economic performance in many countries, affecting their ability to import merchandise, and the volatility of highly export-oriented economies.

International tourism continued to prosper in 1998, when some 625 million tourists travelled to foreign countries, spending almost US$445 billion*, according to preliminary results of the World Tourism Organization. Global tourism development achieved steady growth for international arrivals at 2.4 per cent and some recovery for receipts, growing at an estimated 2 per cent annually (Figure 2). The Asian financial and economic slowdown had a dampening impact on travel in the Pacific Rim countries in particular.

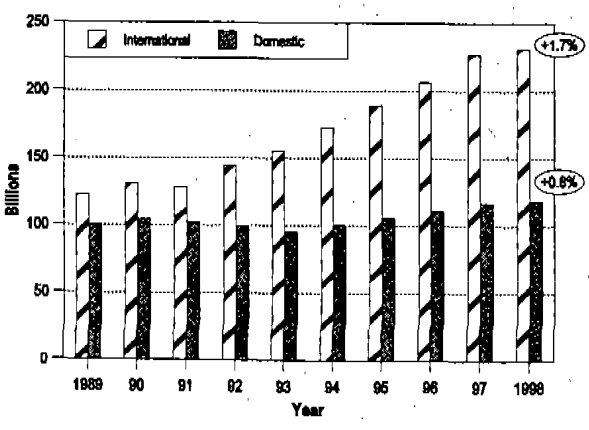


Figure 3. Scheduled traffic
tonne-kilometres performed, 1989-1998

Scheduled Operations

In 1998, the total scheduled traffic carried by the airlines of the 185 Contracting States of ICAO amounted to a total of about 1 462 million passengers and some 26 million tonnes of freight. Both the overall passenger/freight/mail tonne-kilometres performed (Table 1) and the international tonne-kilometres increased by some 1.5 per cent (Table 2). Domestic traffic showed little change between 1997 and 1998. Figure 3 shows the trend from 1989 to 1998.

In 1998 the increase in the overall capacity outpaced the change in traffic, as shown in Figure 4. While the average passenger load factor on total scheduled services (domestic plus international) remained at 69 per cent, the average aircraft load factor decreased one percentage point to 60 per cent (Table 3).

On a regional basis, some 36 per cent of the total traffic volume (passengers/freight/mail) was carried by North American airlines. European airlines carried 28 per cent, Asia/Pacific airlines 26 per cent, Latin American and the Caribbean airlines 5 per cent, Middle East airlines 3 per cent and African airlines 2 per cent (Table 4).

Data for individual countries (Tables 5 and 6) show that in 1998 approximately 46 per cent of the total volume of scheduled passenger, freight and mail traffic was accounted for by the airlines of the United States, Japan and the United Kingdom (34, 6 and 6 per cent respectively). On international services, about 32 per cent of all

* All amounts in this chapter are in U.S. dollars.

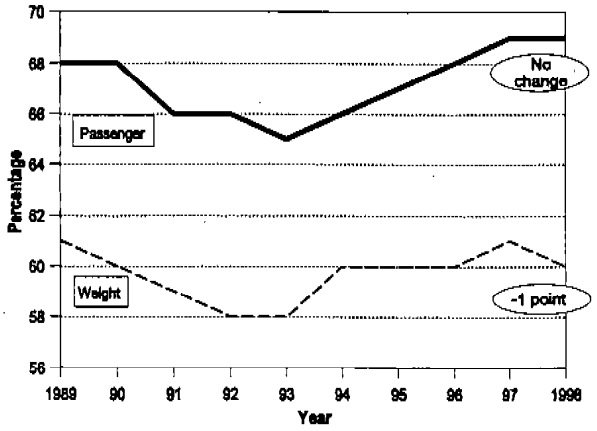


Figure 4. Scheduled traffic
achieved load factors, 1989-1998

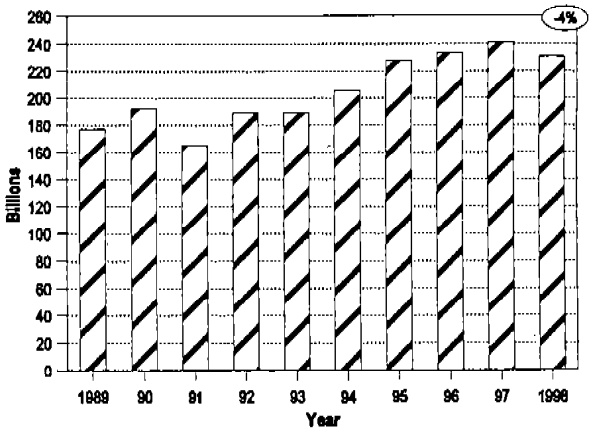


Figure 5. International non-scheduled traffic
passenger-kilometres performed, 1989-1998

traffic was carried by the airlines of the same three countries, the United States, the United Kingdom and Japan (18, 8 and 6 per cent respectively).

Non-scheduled Commercial Operations

It is estimated that in 1998 total international non-scheduled passenger-kilometres decreased by some 4 per cent, with its share of overall international air passenger traffic decreasing from some 14 to 13 per cent (Figure 5 and Table 7). Domestic non-scheduled passenger traffic represents only about 8 per cent of total non-scheduled passenger traffic and some 2 per cent of total domestic passenger traffic worldwide.

Airport Operations

In 1998, the 25 largest airports in the world handled some 992 million passengers, according to preliminary estimates (Table 8). During the same period the airports concerned (17 of which are located in North America, 5 in Europe and 3 in Asia) also handled some 11 million commercial air transport movements.

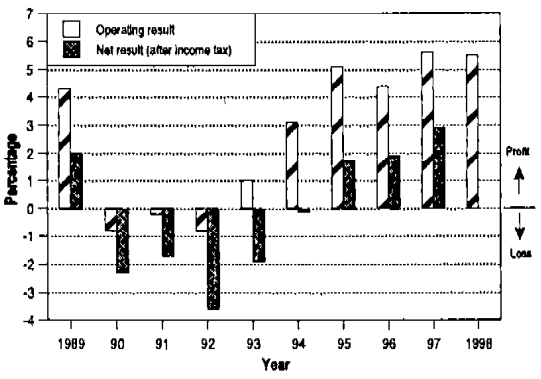


Figure 6. Scheduled airlines
operating and net, 1989-1998

Preliminary estimates for 1998 indicate that the world's scheduled airlines as a whole experienced an operating profit for the fifth year in succession (Table 9 and Figure 6).

The operating revenues of scheduled airlines of ICAO Contracting States are tentatively estimated at $298 500 million in 1998 and operating expenses for the same airlines at $282 000 million, giving an operating profit of 5.5 per cent of operating revenues. This follows an operating profit of 5.6 per cent in 1997.

Per tonne-kilometre, operating revenues increased from 80.8 cents in 1997 to an estimated 81.6 cents in 1998, while operating expenses increased from 76.3 cents to an estimated 77.1 cents.

Carriers

On the basis of schedules published in multilateral airline schedule guides, it is estimated that at the end of 1998 there were some 715 air carriers worldwide providing scheduled passenger services (international and/or domestic) and about 70 operating scheduled all-freight services. Compared with the same period in 1997, this represents a net overall increase of about 10 air carriers.

Airlines continued to expand cooperative ties, including codesharing, joint services and joint participation in frequent flyer programmes.

Aircraft

Between 1989 and 1998, the reported number of commercial air transport aircraft in service increased by about 60 per cent from 11 353 to 18 139 (excluding aircraft with a maximum take-off weight of less than 9 000 kg). Within these totals, turbo-jet aircraft numbers increased by about 67 per cent, from 8 696 to 14 479, over the same period (Figure 7 and Table 10).

In 1998, 1 463 jet aircraft were ordered (compared with 1 309 in 1997) and 929 aircraft were delivered (compared with 674 in 1997). The backlog of unfilled orders at the end of 1998 was 3 565 aircraft compared with 3 062 at the end of 1997.

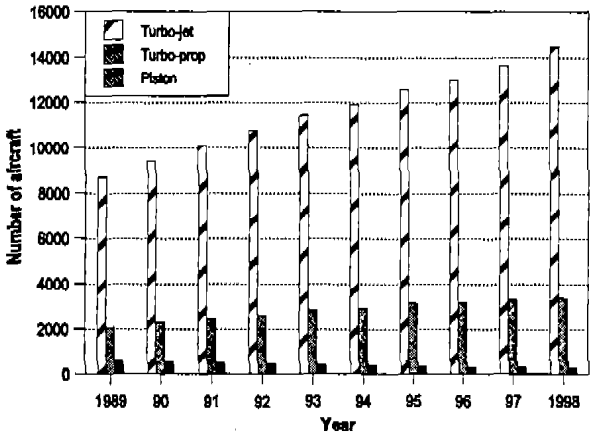


Figure 7. Total commercial air transport fleet
1989-1998

The financial commitment in terms of jet aircraft orders placed in 1998 is estimated to be about $84 000 million compared with $78 000 million for orders in 1997.

The number of turboprop aircraft ordered in 1998 was 78 and 126 turboprop aircraft were delivered during the year.

Most active aircraft type transactions, 1998

Aircraft	*Orders*	*Deliveries*	*Backlog*
Airbus A 319/ 320/321	412	167	986
Boeing 737	354	281	959
Canadair RJ	179	63	262
Embraer EMB-145	86	60	158
Boeing 777	70	74	250
Boeing 717	65	–	115
Airbus A340	60	23	113

The number of bilateral air service agreements reported in 1998 showed a significant reduction from the total reported in 1997, possibly

reflecting an increasing reliance by States on existing bilateral and regional air service agreements. In 1998, States reportedly concluded 54 bilateral air service agreements (of which 42 were new, first-time agreements and 12 were replacements) in comparison to 78 agreements in 1997 (54 new, 24 replacements). However, the number of amendments to existing agreements showed an increase, with 31 reported in 1998 versus 19 in 1997. There were 2 bilateral Memoranda of Understanding (MOUs) reported in 1998, with one reported in 1997.

In terms of the Regions involved, only 4 new agreements, 6 replacements, and 5 amendments were between States within the same ICAO Region while 38 new agreements, 6 replacements, 26 amendments and both MOUs involved States in different ICAO Regions. Over one half of the 87 bilateral agreements and amendments reported in 1998 liberalized the respective regulatory framework in varying degrees. For example, 3 provided for full-market access, an additional 3 provided for the "open skies" concept on a phase-in basis while another 32 contained one or more participation measures such as multi-year capacity increases, multiple designation of airlines and unrestricted cargo or codesharing provisions.

★ *ICAO participated as an observer in an information exchange on air transport at the World Trade Organization, preliminary to the review of the Annex on Air Transport of the General Agreement on Trade in Services (GATS), which is to begin by the year 2000 and which will address the possible extension of the Annex to other air transport services. In a related development, the United Nations Conference on Trade and Development agreed to a study by experts on air transport and the GATS from the perspective of the developing countries, to be held in 1999.*

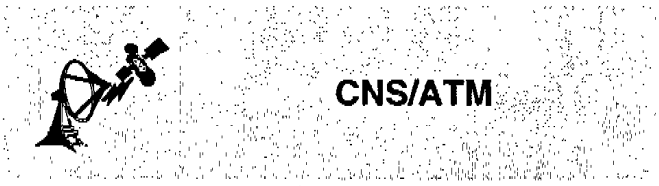
At the regional level, the Multilateral Agreement Concerning the Operation of Air Services within the Caribbean Community (CARICOM) entered into force with the deposit of the eighth ratification. Existing agreements between CARICOM Member States and between Member States and third countries are to remain in force until they expire or terminate, at which time the Multilateral Air Services Agreement shall apply. Four States in South East Asia, Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam, reached agreement on the establishment of a liberalized sub-regional regime for air transport services among themselves. Ministers of Transport from South American States initiated the drafting of an air transport policy for this Region. The European Union (EU) and Switzerland reached political agreement on a package of measures, including one on air transport, which will integrate Switzerland into the single European market. The 7 bilateral agreements involved are subject to national ratification procedures as well as the assent of the European Parliament and are expected to enter into force at the beginning of 2001. The EU continued negotiating a multilateral agreement with central and eastern European States to associate these countries with the EU's internal market. Within the EU, discussions continued on a proposal by the European Commission to include market access and traffic rights in its mandate to negotiate a common aviation area with the United States.

★ *Further to the recommendation of the ICAO Air Transport Regulation Panel in 1997 for a safeguard mechanism for fair competition, ICAO issued an interim list of air transport experts for mediation and dispute resolution. The list was compiled from nominations by Contracting States.*

Competition in air transport was a principal issue in 1998. Internationally, attention in Europe and the United States focused on airline alliances by major carriers. The European Commission continued its investigation of 3 major airline alliances and published its proposed conditions for approval of 2 alliances it had investigated earlier, 1 condition being the surrender of airport slots by airlines in the respective alliances. In the case of the American Airlines/British Airways alliance, the issue remains unresolved, as the United States Department of Transportation (DOT), which had not yet ruled on it, suspended its proceeding on this proposed alliance after bilateral negotiations with the United Kingdom failed to produce an "open skies" agreement. The United States DOT also began gathering inform-

ation and requested public comments from interested parties on airport practices that affect competition among air carriers. The Latin American Civil Aviation Commission adopted a model clause to avoid anti-competitive practices. In the EU, the proposal to accord the Economic Commission authority to apply and to grant bloc exemptions from competition law with respect to third countries was being considered by the Council of (Transport) Ministers and Parliament.

The trend towards partial or full privatization of government-owned airlines continued in 1998. Privatization objectives were made known for 8 airlines and 2 airlines successfully achieved their privatization aims. However, while preparations for privatization continued during the year for some 25 government-owned carriers that had been targeted in previous years, the privatization of some 10 airlines had to be deferred or postponed due to the impact of unfavourable world financial and economic situations, the state of the airlines concerned or local circumstances.



Planning for the implementation of communications, navigation, surveillance/air traffic management (CNS/ATM) systems continued in 1998 through the individual efforts of Contracting States and the work of several planning and implementation regional groups (PIRGs).

★ *In May, a World-wide CNS/ATM Systems Implementation Conference in Rio de Janeiro, Brazil, brought together partners in Communications, Navigation, Surveillance and Air Traffic Management (CNS/ATM) from 123 States and 59 aviation, financial and industry organizations. The Conference produced a range of recommendations to facilitate the early and successful implementation of CNS/ATM systems, notably as regards financing, management, technical cooperation and training aspects.*

Substantial progress was made in all Regions toward implementation of reduced separation minima based on CNS/ATM systems and concepts. In the Pacific Region, the concept of required navigation performance (RNP) formed the basis for a reduction of separation to 50 NM both longitudinally and laterally. Similar work began in the African, Latin America and the Caribbean, Middle East and South American Regions. RNP5 airspace was implemented in the European Civil Aviation Conference (ECAC) area of the European Region and is being planned for implementation in parts of the Middle East Region. RNP5, in conjunction with area navigation (RNAV), allowed States and aircraft operators to take advantage of airborne RNAV capabilities within the coverage of existing VOR based systems. The next phase of reduced vertical separation minima (RVSM) was successfully implemented in the North Atlantic Region, expanding the area of implementation to be between flight levels 290 and 390. Work also commenced on the introduction of RVSM in portions of the European and Pacific Regions.

Controller pilot data link communications (CPDLC) and automatic dependent surveillance (ADS) trials took place in most ICAO Regions. The ADS trials, together with extensive work on 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 a more efficient utilization of the airspace while increasing capacity.

Through surveys conducted during the year, ICAO monitored the progress of implementation by States of the provisions of Annexes 4 and 15, which require publication of aeronautical coordinates referenced to the World Geodetic System — 1984 (WGS-84). The surveys indicated that advances have been made with an increase in the number of States that have now fully, or partially, implemented WGS-84. Assistance by ICAO, through special implementation projects (SIPs) in the Africa-Indian Ocean and the Latin America and the Caribbean and South American Regions, has further increased the number of States that have implemented (28 per cent), partially implemented (10 per cent), or are in the process of implementing (43 per cent) WGS-84. Implementation is expected to improve in 1999, and ICAO will continue to monitor progress and assist States, as required.

Communications

★ *The first set of SARPs for the aeronautical telecommunications network (ATN) was adopted by the Council and became applicable (as part of Amendment 73 to Annex 10) on 5 November.*

Work is continuing towards the development of further SARPs and the refinement of existing provisions, taking into account the experience being gained in the actual hardware/software development and implementation processes. The development of HF data link SARPs was completed at the fifth meeting of the Aeronautical Mobile Communications Panel (AMCP). Adoption of these SARPs by Council is expected in 1999. Work on the development of draft SARPs that will update the current AMSS SARPs has progressed, and this task is expected to be completed in 1999 at AMCP/6. In addition, work on VDL Mode 3 (TDMA integrated voice/data) and VDL Mode 4 (data link for navigation and surveillance application) is continuing. The application of next-generation satellite systems for air navigation is being investigated, through the definition of acceptability criteria for these systems.

Navigation

Significant progress continued in a number of States and international organizations in global navigation satellite systems (GNSS) development and implementation. The ICAO GNSS Panel continued development of SARPs for GNSS.

Development of 3 satellite-based augmentation systems continued. This form of augmentation has the potential to support sole-means use of GNSS for all phases of flight down to Category I precision approach. Several architectures for ground-based augmentation systems with the potential to support Category II/III precision approach applications also continue to be developed and tested. This type of augmentation may be used by some States as an alternative in support of Category I operations. A number of States have approved the global positioning system (GPS) for supplemental or primary use for some operations and types of airspace.

Surveillance

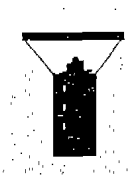
Considerable progress continued to be reported during the year in improving surveillance capabilities. This included development of the ADS-B concept, based on SSR Mode S extended squitter technique. Aeronautical surveillance plans (ASP) aiming at coherent implementation of surveillance facilities, including automatic dependent surveillance and SSR, are under development in the Regions.

Air Traffic Management

Air traffic control (ATC) systems around the world continued to be updated as part of the evolutionary process leading to a seamless global air traffic management (ATM) system.

Progress was made in the development of airspace planning and ATM infrastructure requirements in line with the ICAO Global Air Navigation Plan for CNS/ATM systems.

Several concepts for operation of ATM systems were advanced. The United States progressed work on implementation of its Free Flight concept, while in Europe, the ATM Strategy for 2000+ was further developed. The bodies developing both of these concepts have been working closely with each other toward a coordinated implementation of emerging ATM systems. A global, gate-to-gate ATM operational concept being developed by ICAO will facilitate the evolutionary implementation of a seamless, global ATM system.



AERODROMES

Future larger aeroplanes with wingspans greater than 65 m (larger than the B747-400) and capable of carrying more than 550 passengers may enter

service by the year 2004; these would have an impact on the airport infrastructure. To accommodate these aeroplanes, some States have undertaken airport development projects using current ICAO guidance material.

States are required to evaluate and publish the strength of airport pavements using ICAO's ACN/PCN system. As the current procedures for pavement design and evaluation indicated some limitations when used for analysing the complex loading of new larger aeroplanes equipped with six or more wheels per strut (e.g. Boeing 777), more mature and globally acceptable procedures continue to be examined. In this context, a full-scale pavement testing research project has been planned in one State. The tests are scheduled to be conducted from January 1999.

As a result of the *Montreal Protocol on Substances that Deplete the Ozone Layer*, the production of halons, one of the three complementary fire extinguishing agents recommended in Annex 14, Volume I for aerodrome rescue and fire fighting, ceased on 31 December 1993. Only remaining stocks of halons and recycled halons have since been permitted for essential uses and the search for a suitable alternative is still in progress. In this regard, research in the industry is being monitored by ICAO in order to keep the related specifications current.

The centralization and commercialization of meteorological forecast services around the world continued in 1998. An increasing use of improved automatic weather observing systems for general meteorological observations in States has prompted requests for a review of their role in the provision of observations for aviation. Considerable progress was achieved in the computer preparation of global forecasts of significant weather (SIGWX) by the world area forecast centres (WAFCs). As a result, SIGWX charts for Europe, Middle East, the North Atlantic and Western Asia, prepared by means of an interactive computer workstation, are being issued by the WAFC, London. Global coverage by 3 ICAO satellite broadcasts has been achieved, and very small aperture terminals have been installed in approximately 120 States. These broadcasts provide global WAFS products and operational meteorological (OPMET) information, such as METARs, TAFs and SIGMETs, directly to States. The implementation of the satellite broadcasts and the provision of SIGWX forecasts by the WAFCs have permitted the closure of 5 of the 15 regional area forecast centres (RAFCs), the most recent being RAFC, Cairo, from 1 April 1998.

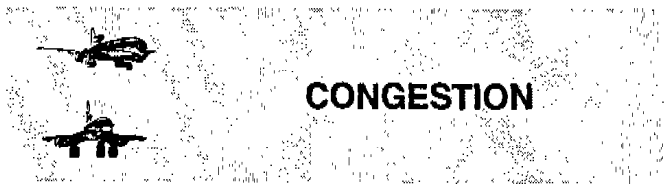
An *Agreement on the Voluntary Sharing of Costs of the Satellite Distribution System for Information relating to Air Navigation* was signed in September. This system provides for more effective transmission of WAFS and OPMET data.

Work continued in States responsible for Volcanic Ash Advisory Centres to develop and issue graphical volcanic ash advisories for provision to area control centres and meteorological watch offices.

The satellite-based COSPAS-SARSAT system continued to play an important role in detecting emergency locator transmitters and in locating aviation distress sites.

The system also continued to expand its capability. There were 6 satellites in operation, and several replacement satellites incorporating technical enhancements were being built. At year's end, 38 local user terminals (LUTs) and 22 mission control centres (MCCs) were in operation. Although global coverage was already provided on 406 MHz, additional LUTs and MCCs were planned to increase the real-time coverage of the system and reduce overall

response time. A geostationary component of the system was being developed, which would provide for almost instantaneous alert. Since it began trial operations in September 1982, the COSPAS-SARSAT system has contributed to the rescue of over 8 900 persons in aeronautical, maritime and terrestrial incidents.



Airport and airspace congestion continued to affect operations in many areas of the world as the demand for air travel has been increasing more rapidly than the airport and airspace capacity. Airport and airspace capacity for present and anticipated demand may increase traffic delays and, consequently, the costs to international civil aviation. Coordinated efforts to alleviate airside congestion continued through a range of activities, with implementation of CNS/ATM systems expected to make a noteworthy contribution.

As regards groundside congestion, during 1998 ICAO completed a study which had been requested by the Facilitation (FAL) Division, seeking recommendations concerning the inclusion of identification details of dependents in the passport of their parent or guardian — a practice by which children may travel internationally without having a passport of their own. When first established as a recommended practice in 1968, this documentation procedure was considered to be a measure not only to facilitate a child's travel but also to simplify the clearance of families through entry and departure controls at airports. However, the information acquired from the study, in light of modern social problems and international conventions and resolutions concerning children and passport security, indicates that in fact, the practice often inconveniences the child and complicates immigration inspection. The FAL Panel subsequently adopted a recommendation that each traveller, regardless of age, be issued his or her own passport in the interests of both facilitation and security. An appropriate recommendation for an amendment to Annex 9 will be submitted to the Air Transport Committee early in 1999.

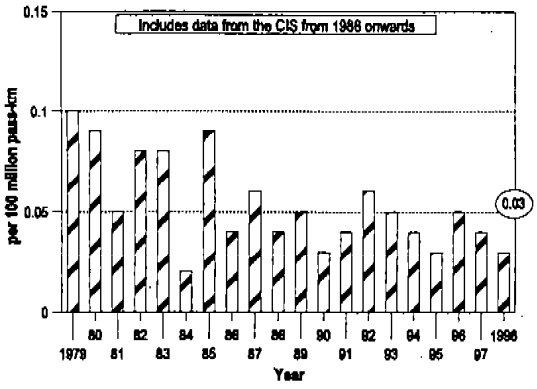
Scheduled Operations

Preliminary information on aircraft accidents involving passenger fatalities in scheduled air services worldwide shows that there were 22 fatal aircraft accidents in 1998 involving 909 passenger fatalities compared to 26 fatal accidents and 916 passenger fatalities in 1997 (Table 11). Relating passenger fatalities to the volume of traffic, there was little change in the number of passenger fatalities per 100 million passenger-kilometres which remained at about 0.035. The number of fatal aircraft accidents per 100 million aircraft-kilometres flown decreased to 0.10 in 1998 from 0.13 in 1997, and the number of fatal aircraft accidents per 100 000 landings also decreased to 0.11 in 1998 from the previous rate of 0.14 in 1997 (Figure 8).

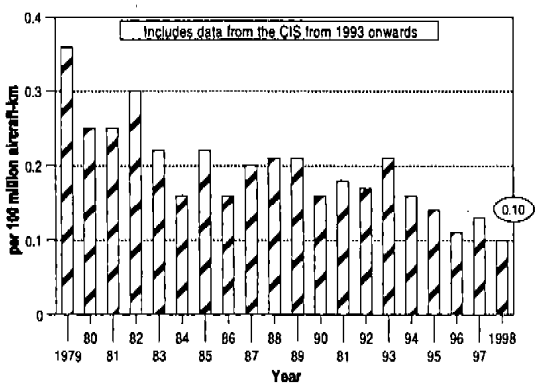
The safety levels are significantly different for the various types of aircraft operated on scheduled passenger services. For instance, in turbo-jet aircraft operations, which account for about 95 per cent of the total volume of scheduled traffic (i.e. in terms of passenger-kilometres performed), there were 7 accidents in 1998 with 719 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for about 5 per cent of the scheduled traffic volume, there were 15 accidents with 190 passenger fatalities. The fatality rate for turbo-jet aircraft operations was, therefore, far lower than for propeller-driven aircraft.

Non-scheduled Commercial Operations

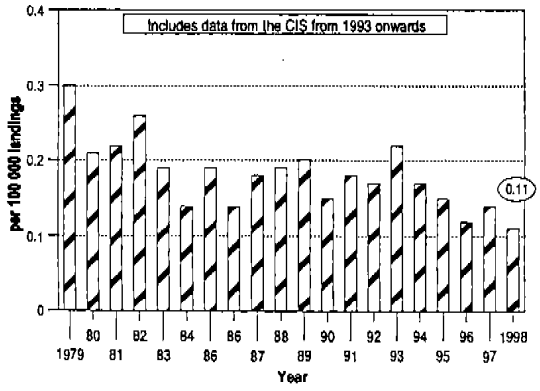
Non-scheduled commercial operations include both the non-scheduled flights of scheduled



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



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



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

Figure 8. Aircraft accident statistics
1979-1998

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 in 1998 there were a total of 33 fatal accidents (of which 6 involved aircraft operating all-cargo services with passengers on board) with 282 passenger fatalities compared to 31 fatal accidents with 305 passenger fatalities in 1997.

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 9 fatal accidents (of which 5 involved aircraft operating all-cargo services with passengers on board) with 185 passenger fatalities in 1998.

SAFETY OVERSIGHT

★ *The voluntary ICAO safety oversight programme continued its activities in 1998. By the end of the year, 88 States had requested a safety oversight assessment by an ICAO team since the beginning of the programme in March 1996; 10 administrations were assessed during the year, bringing the total of assessed States to 67.*

★ *By 31 December, 35 of the assessed States had prepared and submitted to ICAO action plans in order to rectify deficiencies or to implement ICAO Standards and Recommended Practices. Eight of these action plans were developed by the Technical Co-operation Bureau as part of project documents.*

★ *Follow-up action on the safety oversight assessment reports continued during 1998 with 3 missions conducted by Technical Officers/Operations from the ICAO Regional Offices, with the support of personnel from Headquarters.*

★ *Safety oversight was accorded very high priority in the Asia/Pacific Region and was included as a separate agenda item in the annual Conference of Directors General of Civil Aviation, Asia and Pacific Regions, commencing with the Conference held at Kathmandu in November 1998.*

★ *A Memorandum of Understanding promoting cooperation between ICAO and LACAC with regard to safety oversight in the American Continent was signed during the 32nd Session of the Assembly.*

★ *On the basis of the recommendations made by the Directors General of Civil Aviation Conference on a global strategy for safety oversight, held at ICAO Headquarters in November 1997, the Council, on 6 May, approved the establishment of the ICAO Universal Safety Oversight Audit Programme, providing for the conduct of mandatory and regular safety audits of all States, and for greater transparency in the disclosure of audit results. The 32nd Session of the Assembly adopted Resolution A32-11 endorsing the audit programme and directing the Council to bring it into effect from 1 January 1999.*

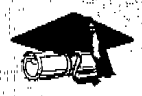
YEAR 2000 CONTINGENCY PLANNING

★ *In July, ICAO announced that it had developed, in cooperation with the world aviation community, a comprehensive action plan to assist States in addressing potential computer failures and malfunctions associated with the year 2000 problem (Y2K) in worldwide air traffic services, and work on Y2K subsequently intensified.*

HUMAN FACTORS

The trend towards the incorporation of Human Factors requirements into the certification process of equipment, procedures and personnel focused during 1998, on air traffic management. In terms of implementation, EUROCONTROL led the initiative and organized, in September, a workshop on the integration of Human Factors knowledge into air traffic management. Regulatory authorities, equipment designers, vendors, researchers and operational personnel discussed guidelines for research and implementation of Human Factors requirements into ATM. Follow-up activities are planned for 1999.

During 1998, the Federal Aviation Administration (FAA) established a Certification Task Force for CNS/ATM to review the certification process for advanced aviation systems. The objective of the Task Force is to recommend changes that would improve timeliness and reduce costs while maintaining or improving safety. A working group of the Task Force is dealing with human performance in CNS and is expected to produce a report by early 1999. ICAO participates in this project as an invited member of the FAA Task Force Steering Committee.



TRAINING

The World-wide CNS/ATM Systems Implementation Conference addressed the training needs associated with the new systems. It recommended that a regional approach be taken when planning the development and implementation of CNS/ATM training and that the ICAO Regional Offices coordinate the establishment of regional CNS/ATM training capabilities. The conference also recommended that States increase their participation in the ICAO TRAINAIR Programme to provide a higher level of training harmonization on a global level.

WARSAW SYSTEM

Following a review by the Special Group on the Modernization and Consolidation of the "Warsaw

System", in which outstanding questions relating to the text of the *Draft Convention for the Unification of Certain Rules for International Carriage by Air* were largely resolved, the Council decided in June 1998 to convene in Montreal from 10-28 May 1999, a Diplomatic Conference for the Adoption of the said draft Convention.

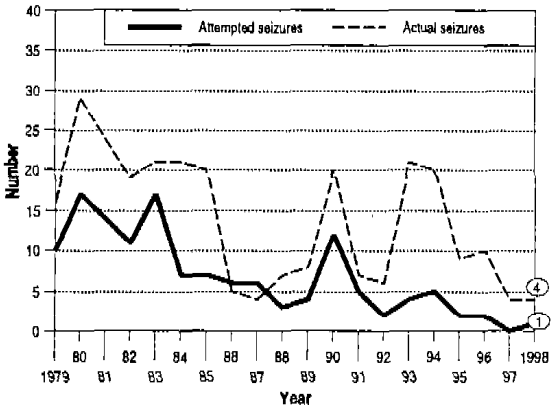
★ *In June, the Montreal Protocol No. 4 to Amend the Convention for the Unification of Certain Rules relating to International Carriage by Air, entered into force. In relation to cargo, the Protocol simplifies documentation and introduces strict liability in international carriage by air.*

SECURITY

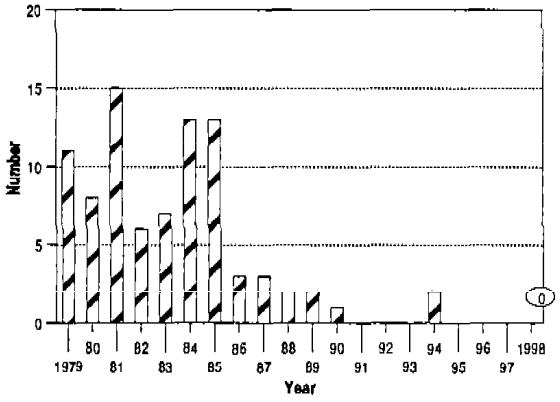
During the reporting period, 6 acts of unlawful interference were officially reported or confirmed by concerned States. These included 4 unlawful seizures of domestic aircraft and 2 incidents involving international flights, namely 1 attempted seizure, and 1 unlawful act against the safety of civil aviation (Table 12). These acts have been included in the annual statistics to assist in the analysis of trends and developments (Figure 9).

★ *The 32nd Session of the Assembly endorsed the Council's decision to extend the Mechanism for financial, technical and material assistance to States with regard to aviation security until the end of 2001.*

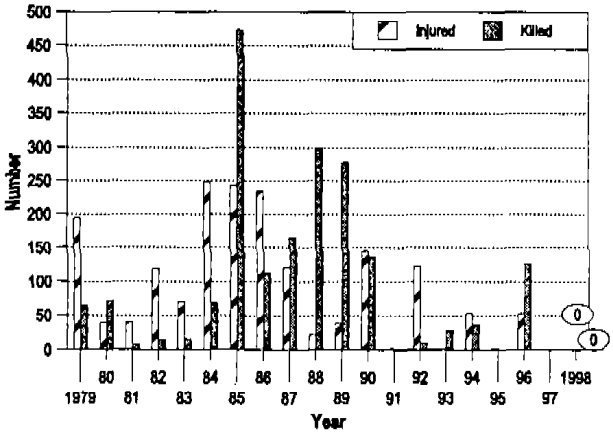
★ *Since the commencement of Mechanism activities in 1989, 132 States have requested assistance; of these, 106 received technical evaluation missions, 37 were visited during follow-up missions and 112 training events were staged in which 2 471 trainees participated. These activities were financed through voluntary contributions by 15 donor States totalling $4 875 681 and through the funding of 7 posts by 4 donor States.*



Acts of unlawful seizure



Incidents of sabotage



Number of persons killed or injured

Figure 9. Aviation security statistics
1979-1998

ENVIRONMENTAL PROTECTION

Following the decision in 1996 by the Intergovernmental Panel on Climate Change (IPCC), at ICAO's request, to undertake the preparation of a special report on *Aviation and the Global Atmosphere* in collaboration with the Scientific Assessment Panel of the Montreal Protocol and with ICAO involvement, report drafts have been peer-reviewed, and completion is expected in April 1999. This report should give States, ICAO and other UN policy-making bodies an authoritative common base of information for addressing the impact of aircraft engine emissions.

Following the adoption in December 1997 of the Kyoto Protocol to the UN Framework Convention on Climate Change, negotiations began on developing the rules governing the new mechanisms provided for in the Protocol. These include emissions trading, which could be of relevance to aviation.

Within both the European Civil Aviation Conference and the European Union, proposals were under development to address concerns associated with aircraft recertificated to meet the noise Standards in Volume I, Chapter 3 of Annex 16.

★ *In April, the fourth meeting of ICAO's Committee on Aviation Environmental Protection (CAEP) adopted a consensus recommendation to make the ICAO emissions limits for oxides of nitrogen in Annex 16 more stringent. States have since been consulted and action by the Council is expected early in 1999.*

★ *The 32nd Session of the Assembly underlined the importance of the Kyoto Protocol and requested the Council (through CAEP) to study policy options to limit or reduce the greenhouse gas emissions from civil aviation, taking into account the findings of the IPCC report and the requirements of the Kyoto Protocol, and to report to the next ordinary session of the Assembly in 2001.*

★ *In the light of a preliminary report by CAEP on possible options for reducing aircraft engine emissions through levies (charges or taxes), the 32nd Session of the Assembly also requested that the development of future guidance to be given to States on this subject be completed before the Assembly session in 2001, and agreed on the need to inhibit unilateral action in the meantime.*

★ *In the noise field, it was decided that CAEP should take up again the question of more stringent certification Standards than those contained in Annex 16, Chapter 3.*

SMOKING RESTRICTIONS

★ *By the end of 1998, considerable progress had been made in achieving a smoke-free environment on board passenger flights worldwide, in many cases based on voluntary changes in airline policies. Virtually all carriers in Australia, New Zealand, the Nordic countries and North America have implemented complete smoking bans system-wide. In Asia, Europe and the Middle East, a majority of all flights are now smoke-free. In South America, only a minority of flights are smoke-free. In the African Region, the airlines of some 15 States have banned smoking on board passenger flights. However, no information is available about smoke-free flights in other States of the Region.*

SUBSTANCE ABUSE

★ *In February, the Council adopted Amendment 162 to Annex 1 concerning new*

provisions related to the use of psychoactive substances. The Council also adopted a similar amendment to Annex 2 with a cross-reference in Annex 6. These new provisions, supported by the Manual on Prevention of Problematic Use of Substances in the Aviation Workplace *(Doc 9654), are expected to contribute significantly to flight safety worldwide, primarily by promoting a higher degree of awareness and openness around alcoholism, drug abuse and other forms of problematic use of psychoactive substances.*

TECHNICAL CO-OPERATION

The ICAO Technical Co-operation Programme for 1998 was valued at $56.5 million, of which $52 million (or 92 per cent) was implemented.

During the year, the Technical Co-operation Bureau executed 124 projects in 75 developing countries and a total of 14 new and revised large-scale projects were approved. The TCB employed 284 experts from 40 countries to work in its field projects. A total of 567 fellowships were awarded and procurement expenditures for field projects totalled $15.68 million.

The year 1998 was a milestone in the implementation of Assembly Resolution A31-14 (before it was superseded by Assembly Resolution A32-21). During the year, progress was made in the progressive implementation of the core staff concept as well as an important achievement in the integration of the Technical Co-operation Bureau in the Regular Programme. The 32nd Assembly, upon recommendation of the Council, approved the transfer of all AOSC funded staff in the Regional Offices to the Regular Programme Budget. In addition, efficiency measures, particularly in the information technology area, were introduced in the second half of the year to increase the effectiveness of the Bureau in providing its services to developing countries.

Despite the efforts made to increase the Technical Co-operation Programme in the Regions other than the Americas, this Region's programme continues to dominate ICAO's technical cooperation activities in the world. The total Technical Co-operation Programme in the Americas Region in 1998 was $38.24 million, a 68 per cent of the total programme of $56.51 million, compared with $50.95 million, a 68 per cent of the total programme of $75.1 million in 1997 and $43.13 million, a 64 per cent of the total programme of $67.04 million in 1996. A noticeable increase of 20 per cent has been achieved in the programmes of Europe and the Middle East Regions from $6.12 million in 1997 to $7.37 million in 1998.

THE ORGANIZATION

★ *The 32nd Session of the Assembly, held in September/October, was attended by participants from 155 Contracting States and observers from 2 non-Contracting States and 28 international organizations; the Assembly: elected a new Council for a three-year term; adopted a budget and work programme for 1999-2000-2001; endorsed the establishment of a universal Safety Oversight Programme comprising regular, mandatory systematic and harmonized safety audits effective 1 January 1999, along with a Global Aviation Safety Plan (GASP); and addressed a wide range of other subjects in the fields of air navigation, environmental protection, security, economics, legal matters, technical cooperation policy, and increasing the effectiveness of ICAO.*

★ *The Council took a number of measures to streamline further the working methods and procedure of the Council and the Assembly pursuant to Assembly Resolution A31-2 on Increasing the effectiveness of ICAO. Assembly Resolution A32-1 on Increasing the effectiveness of ICAO (measures for continuing improvement in the 1999-2001 triennium and beyond) while appreciating and endorsing action taken so far urges the Council and the Secretary General to continue their work in the area without weakening the Organization or adversely affecting its function. The Council drew up a programme of action for the next triennium in this regard.*

★ *A Diplomatic Conference convened in Montreal adopted on 1 October 1998 the* Protocol on the Authentic Six-Language Text of the Convention on International Civil Aviation (Chicago, 1944), *setting forth the authentic text of the Convention in the Chinese language. In parallel, the 32nd Session of the Assembly adopted the* Protocol Relating to an Amendment to the Convention on International Civil Aviation, *signed at Montreal on 1 October 1998, providing that the text of the Convention in the Chinese language is of equal authenticity to the English, French, Spanish, Russian and Arabic texts.*

★ *In June, the* Convention on the Marking of Plastic Explosives for the Purpose of Detection, done at Montreal on 1 March 1991, *entered into force. The Convention,* inter alia, *requires each State Party to prohibit and prevent the manufacture in its territory of unmarked plastic explosives, as well as prohibiting and preventing their movement into or out of its territory. In addition, the Convention establishes an International Explosives Technical Commission which will evaluate technical developments relating to the manufacture, marking and detection of explosives. Pursuant to the entry into force of the Convention, the Council is in the process of appointing this Commission.*

★ *In June, the Council endorsed a settlement mediated by the President of the Council, Dr. Assad Kotaite, which resolved a long-standing dispute between Cuba and the United States over the right of Cuban-registered aircraft to overfly the United States on flights to and from Canada.*

★ *An* Agreement on the Voluntary Sharing of Costs of the Satellite Distribution System for Information relating to Air Navigation (SADIS) *was signed in September.*

★ *In October, the* Protocol relating to an Amendment to the Convention on International Civil Aviation [Article 3 *bis*], *signed at Montreal on 10 May 1984, entered into force. Under the Protocol, Contracting States recognize that every State must refrain from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of civil aviation must not be endangered.*

★ *In November, the Council unanimously elected Dr. Assad Kotaite (Lebanon) as its President for a ninth consecutive three-year term.*