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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 2003 prepared in compliance with Article 54(a) of the Convention on International Civil Aviation. With the Reports for 2001 (Doc 9786) and 2002 (Doc 9814), it constitutes documentation for Item 7 of the Provisional Agenda of the 35th Session of the Assembly, and it will be supplemented by a brief review of the work of the Organization for the first six months of 2004. It is being circulated to Contracting States now for their information and 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 2003. These were the One hundred and sixty-eighth Session from 22 January to 14 March, with a total of fourteen meetings, one of which was held outside the Council phase; the One hundred and sixty-ninth Session from 16 April to 13 June, with a total of fifteen meetings, one of which was held outside the Council phase; and the One hundred and seventieth Session from 19 September to 5 December, with a total of sixteen 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

AAMAC. African and Malagasy Civil Aviation Authorities ACAC. Arab Civil Aviation Commission ACAS. Airborne collision avoidance system ACCC. Australian Competition and Consumer Commission ACCs. Area control centres ACI. Airports Council International **ACP.** Aeronautical Communications Panel **ACS.** Association of Caribbean States ACSA. Central American Agency for Aviation Safety ADB. Asian Development Bank ADREP. Accident and incident data reporting ADS. Automatic dependent surveillance ADS-B. Automatic dependent surveillance-broadcast AECI. Spanish Agency for International Cooperation AENA. Spanish Airports Authority AEP. Airport Economics Panel **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 AFISNET. Aeronautical satellite telecommunication network for Central and Western Africa AFRAA. African Airlines Association **AFS.** Aeronautical fixed service AGA. Aerodrome, air routes and ground aids AH-DE. Ad Hoc Group of Specialists on the Detection of Explosives AIC. Aeronautical information circulars AIG. Accident investigation and prevention AIP. Aeronautical Information Publication AIRAC. Aeronautical information regulation and control **AIRP.** Airworthiness Panel AIS. Aeronautical information service AIS/MAP. Aeronautical information and charts AISMAPSG. Aeronautical Information and Charts Study Group AJAB. Advisory Joint Appeals Board ALAR. Approach and landing accident reduction

ALPA. Air Line Pilots' Association AMBEX. AFI meteorological bulletins exchange AMCP. Aeronautical Mobile Communications Panel AMDAR. Aircraft Meteorological Data Relay AMHS. ATS message handling system AML. Aircraft maintenance licensing AMOSSG. Aerodrome Meteorological Observing Systems Study Group AMS. Aeronautical mobile service AMSS. Aeronautical mobile satellite service **ANC.** Air Navigation Commission ANPs. Air Navigation Plans ANSEP. Air Navigation Services Economics Panel AOC. Aeronautical operational control AOSCF. Administrative and operational services cost fund **AOT.** Airports of Thailand APANPIRG. Asia/Pacific Air Navigation Planning and Implementation Regional Group APHMWG. Air Passenger Health Multi-Disciplinary Working Group APIRG. AFI Planning and Implementation Regional Group **APT.** Asia-Pacific telecommunity **APV.** Approach with vertical guidance ARINC. Aeronautical Radio, Incorporated **ASA.** Aviation Security Audit ASAS. Airborne separation assistance system ASD. Aviation Safety Division ASEAN. Association of Southeast Asian Nations ASECNA. Agency for Air Navigation Safety in Africa and Madagascar ASIA/PAC. Asia/Pacific A-SMGCS. Advanced surface movement guidance and control systems AsMA. Aerospace Medical Association **ASTC.** Aviation Security Training Centre **ASTP.** Aviation Security Training Package ATA. Air Transport Agreement ATB. Air Transport Bureau ATC. Air traffic control ATConf. Worldwide Air Transport Conference ATDSG. Aircraft Type Designators Study Group

ATFM. Air traffic flow management ATLAS. Automated Library System ATM. Air traffic management ATN. Aeronautical telecommunication network **ATNP.** Aeronautical Telecommunication Network Panel ATO. Air transportation office **ATPL.** Air transport pilot licence ATRP. Air Transport Regulation Panel ATS. Air traffic services ATSP. Air Traffic Service Providers AUPISG. Aeronautical Use of the Public Internet Study Group AVSEC. Aviation Security AVSSSG. ATS Voice Switching and Signalling Study Group **BIAL.** Bangalore International Airport Limited BUFR. Binary universal form for the representation of meteorological data CAA. Civil Aviation Authority CAAG. CFIT/ALAR Action Group CAAS. Civil Aviation Authority of Singapore CACAS. Civil Aviation Caretaker Authority for Somalia **CAEP.** Committee on Aviation Environmental Protection **CAFSAT.** Central Atlantic FIRs Satellite Network **CAMP.** Civil Aviation Master Plan CAPS. Civil Aviation Purchasing Service CAR. Caribbean CAST. Commercial aviation safety team CATC. Civil Aviation Training Centre CEB. United Nations System Chief Executives Board CFIT. Controlled flight into terrain CFR. Crash firefighting rescue CGWI. Council Group on Aviation War Risk Insurance CIS. Commonwealth of Independent States CNS. Communications, navigation and surveillance COCESNA. Central American Corporation for Air Navigation Services **COM.** Communications COMESA. Common market for Eastern and Southern Africa **COPAD.** Commission for the processing of applications for posts at the Director level **COSCAP.** Cooperative Development of Operational Safety and Continuing Airworthiness Programme COSPAS. Space System for Search of Vessels in Distress CPDLC. Controller-pilot data link communications CPL. Commercial pilot licence CRAME. Contingency Routing Scheme for Asia/Middle East/Europe **CRS.** Computer reservation systems **CTS.** Council for Trade in Services

DAGMAR. Database of aeronautical agreements and arrangements DAGWOOD. Dangerous goods web-oriented database DCA. Department of Civil Aviation DCA. Directorate of Civil Aviation **DECEA.** Department of Airspace and Control 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 EAC. East African Cooperation EANPG. European Air Navigation Planning Group EAO. Office for Programmes Evaluation, Audit, and Management Review EASA. European Aviation Safety Authority EC. European Commission EC. European Council ECA. Economic Commission for Africa ECAC. European Civil Aviation Conference **ECCAIRS.** European Co-ordination Centre for Aviation Incidents Reporting Systems ECOWAS. Economic Community of West African States EDEN. Electronic Documents and Enquiry Network EDU. External Distribution Unit EGNOS. European Geostationary Navigation Overlay Service EIB. European Investment Bank ELT. Emergency locator transmitter EMAC. Europe-Middle East Coordination Bureau on Air Traffic Management 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 EU. European Union EUMETSAT. European Organisation for the Exploitation of Meteorological Satellites **EUR.** European EUROCONTROL. European Organisation for the Safety of Air Navigation FAA. Federal Aviation Administration FAI. Fédération aéronautique internationale FAL. Facilitation FALD. Field Administration and Logistic Division FANS. Future Air Navigation Systems FASID. Facilities and Services Implementation Document FCCC. Framework Convention on Climate Change FCLTP. Flight Crew Licensing and Training Panel FIR. Flight Information Region

FIS. Flight Information Services FOAMRSG. Flight Operations and Airworthiness Model Regulations Study Group FSF. Flight Safety Foundation GALA. Global Aviation Leadership Award GASP. Global aviation safety plan GATS. General Agreements on Trade in Services **GBAS.** Ground-based augmentation systems GCAA. General Civil Aviation Authority GDP. Gross domestic product **GEOSAR.** Geostationary GIS. Geographic information system GLONASS. Global navigation satellite system GNSS. Global navigation satellite system GPS. Global positioning system **GREPECAS.** CAR/SAM Regional Planning and Implementation Group **GRIB.** Gridded binary HCAA. Hellenic Civil Aviation Authority **HFDL.** High frequency data link HLCM. High-Level Committee on Management HLCP. High-Level Committee on Programmes HTRSG. Helicopter/Tiltrotor Study Group IAASM. International Academy of Aviation and Space Medicine IAC. Institute of Civil Aviation **IAC.** Interstate Aviation Committee 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 **IFALPA.** International Federation of Air Line Pilots' Associations IFATCA. International Federation of Air Traffic Controllers' Associations IFFAS. International Financial Facility for Aviation Safety IFHA. International Federation of Helicopter Associations **IFR.** Instrument flight rules ILO. International Labour Office **ILS.** Instrument landing system IMC. Instrument meteorological conditions 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 **ISSN.** International Standard Serial Number **IT.** Information Technology ITMP. Information Technology Master Plan ITU. International Telecommunication Union IWG. Inter-sessional Working Group JAA. Joint Aviation Authorities LACAC. Latin American Civil Aviation Commission LAM. Latin America LAN. Local area network LARs. Latin American Regulations LAS. League of Arab States LEB. Legal Bureau LEOSAR. Low altitude earth orbiting constellation of satellites LNAV. Lateral navigation LOSA. Line Operations Safety Audit MALIAT. Multilateral Agreement on the Liberalization of International Air Transportation MANPADs. Man-portable air defence systems MET. Meteorology METAR. Aviation routine weather report (in aeronautical meteorological code) METLINKSG. Meteorological Information Data Link Study Group MEU. Mobile engineering units MID. Middle East MIDANPIRG. MID Air Navigation Planning and Implementation Regional Group MLS. Microwave landing system MOCAT. Ministry of Civil Aviation and Tourism MONUC. Mission de l'Organisation des Nations Unies en République démocratique du Congo MRTD. Machine Readable Travel Documents MSA. Management service agreement NA. North Asia NAM. North American NARAST. North Asia Regional Aviation Safety Team NATO. North Atlantic Treaty Organization NAT SPG. North Atlantic Systems Planning Group NDB. Non-directional radio beacon NDIA. New Doha International Airport NEPAD. New African Partnership for Development NGSS. Next-generation satellite systems NLAs. New larger aeroplanes **NPA.** Non-precision approach NSP. Navigation Systems Panel OAA. Open aviation area **OAS.** Organization of American States NTSB. National Transportation Safety Board

NUICAF. Aeronautics Institute of Sciences of Physical Activities **OCP.** Obstacle Clearance Panel **OCR.** Optical character recognition OFOD. On-flight origin and destination **OHR.** Office of the High Representative **OIFM.** Objectives Implementation Funding Mechanism **OPAS.** Operational assistance **OPLINKP.** Operational 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 PCA. Presidency of Civil Aviation PIASA. Pacific Islands Air Services Agreement PIRG. Planning and implementation regional group PPDG. Passenger Processing Drafting Group PREPCOM. Preparatory Committee PSAG. Postal Security Action Group **RA.** Regional Association RASMAG. Regional Airspace Safety Monitoring Advisory Group **RCP.** Required communication performance **RDS.** Registry, Distribution and Sales Section **REDDIG.** South American digital network **REGIS.** Registry information system RFF. Rescue and fire fighting **RNAV.** Area navigation **RNP.** Required navigation performance **RSP.** Required surveillance performance **RTSP.** Regulation and a total system performance **RVSM.** Reduced vertical separation minima SA. South Asia SADC. Southern African Development Community SADIS. Satellite distribution system for information relating to air navigation SAE. Society of Automotive Engineers SAFA. Safety assessment of foreign aircraft SAM. South American SAR. Search and Rescue SAR. Special Administrative Region SARAST. South Asia Regional Aviation Safety Team SARM. Security Audit Reference Manual SARPs. Standards and Recommended Practices SARS. Severe Acute Respiratory Syndrome SARSAT. Search and Rescue Satellite-Aided Tracking SAT. South Atlantic

SATCC. Southern African Transport and Communications Commission SBAS. Satellite-based augmentation system **SBI.** Subsidiary Body for Implementation SBSTA. Subsidiary Body for Scientific and Technological Advice SCRAG. SADIS Cost Recovery Administrative Group SCT/DGAC. Secretaria de Comunicaciones y Transportes, Dirección General de Aeronáutica Civil SEA. Southeast Asia **SEARAST.** South East 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 SSR. Secondary surveillance radar STP. Standardized Training Package STS. Support for technical services at the project level **TAF.** Aerodrome forecast **TASAs.** Template air services agreements TCACs. Tropical advisory centres TCB. Technical Co-operation Bureau TCP. Technical Co-operation Programme **TEM.** Threat and error management **TF.** Trust Funds TRD. Terminology, Reference and Documentation UACC. Upper Area Control Centre UAT. Universal access transceiver UEMOA. Economic and Monetary Union of West Africa **UN.** United Nations **UNAT.** United Nations Administrative Tribunal **UNDP.** United Nations Development Programme UNDPKO. United Nations Department of Peacekeeping Operations **UNEP.** United Nations Environment Programme UNESCO. United Nations Educational, Scientific and Cultural Organization **UNFCCC.** United Nations Framework Convention on Climate Change **UNGIWG.** United Nations Geographic Information Working Group UNMIK. United Nations Interim Administration Mission in Kosovo UNODC. United Nations Office on Drugs and Crime UPU. Universal Postal Union

USAP. Universal Security Audit Programme

USOAP. Universal Safety Oversight Audit Programme
VAAC. Volcanic ash advisory centre
VDL. VHF digital link
VHF. Very high frequency
VNAV. Vertical navigation
VOR. VHF omnidirectional radio range
VPN. Virtual Private Network
VSAT. Very small aperture terminal
WAAS. Wide Area Augmentation System
WACAF. Western and Central African Office (Dakar)
WAFC. World Civil Aviation Chief Executives Forum
WAFS. World area forecast centre
WAFSOPSG. World Area Forecast System Operations
Group

- WAS. Wide area augmentation system
 WASA. World's air services agreements
 WCO. World Customs Organization
 WGS-84. World Geodetic System 1984
 WHO. World Health Organization
 WHTI. Western Hemisphere Transport Initiative
 WLA. Web, Library and Archives
 WMO. World Meteorological Organization
 WRC-2003. World Radiocommunication Conference 2003
 WRIGHT. WHO Research Into Global Hazards of Travel
 WSIS. World Summit on the Information Society
 WTO. World Trade Organization
 - WTO-OMT. World Tourism Organization

Chapter I The Year in Summary

This chapter summarizes the principal trends and developments in civil aviation and the work of ICAO in 2003. Tables in Appendix 12 provide detailed statistics on the data presented in this chapter.

1. THE WORLD ECONOMY

In 2003, following the negative impact of the Iraq crisis and the Severe Acute Respiratory Syndrome (SARS) outbreak during the first half of the year, the world economy began to show signs of a renewed recovery. The world gross domestic product (GDP) grew approximately 3.9 per cent in real terms, almost one percentage point higher than in the previous year (Figure 1). For the industrialized countries, GDP grew at about 2.1 per cent, somewhat above the level achieved in 2002. The



Figure 1. Development in world GDP in constant prices vear-on-vear changes. 1994 – 2003

North American economy grew by 3.0 per cent, over a half percentage point higher than that in the previous year, as the negative effects of geopolitical uncertainties during the first part of the year were offset by the impact of supportive monetary and fiscal policies. GDP growth for developing countries consolidated at 6.1 per cent, well above the world average but with significant regional variations.

Africa's economy achieved a 4.1 per cent GDP increase and showed some improvement over the last year. The aggregate economy of the region with the largest share of the world economy, Asia and the Pacific, grew by some 5.9 per cent in 2003. Developing countries in the Asia and the Pacific Region contributed significantly as their average GDP grew by 7.8 per cent. China's GDP showed a remarkable growth of 9.1 per cent, while Asia's newly industrialized economies posted a 3.0 per cent GDP growth, much lower than the previous year due mainly to lower domestic demand and slower growth in exports. Japan's GDP grew by 2.7 per cent, while the Australian and the New Zealand economies demonstrated a growth of 3.0 and 3.5 per cent, respectively.

The European Region achieved an average GDP growth of 1.2 per cent; the European currency area achieved a 0.4 per cent growth rate, below the regional average and that for other industrialized countries. The Central and Eastern European economies grew around 4.5 per cent, while in the countries of the Commonwealth of Independent States (CIS) the GDP grew an average 7.6 per cent, about two and a half percentage points higher than the previous year.

Economic growth in the Latin America and the Caribbean Region rebounded following the slowdown and negative growth of the previous years. The aggregate economy of the Region showed an increase of 1.7 per cent in 2003. The main factors underlying this recovery are a gradual increase in exports and an improvement in domestic demand.

The Middle East Region's economy grew by about 5.4 per cent, due mainly to an increase in oil production and to some extent reduced geopolitical concerns subsequent to the Iraq crisis.

The world trade volume in goods and services is estimated to have grown by approximately 4.5 per cent in 2003.

International tourism in 2003 decreased by an estimated 1.2 per cent. The World Tourism Organization (WTO-OMT) estimates that approximately 694 million tourists travelled to foreign countries in 2003 (8.5 million less than in the previous year) (Figure 2).

2. TRAFFIC

Scheduled Operations

In 2003, the total scheduled traffic carried by the airlines of the 188 Contracting States of ICAO amounted to approximately 1 657 million passengers and some 35 million tonnes of freight. During the



Figure 2. International tourism receipts and arrivals U.S. dollars, 1994 – 2003

first half of the year, traffic development was negatively affected by the events in the Middle East and in particular by the SARS outbreak, which had a significant impact on the passenger traffic to, from and within the affected areas. Reported monthly figures suggest that the drop in passenger traffic reached its lowest in May after which it started a steady recovery. Data for the year as a whole indicate that in 2003 the overall passenger/freight/mail tonne-kilometres performed showed an increase of some 2 per cent over 2002^1 , with international tonne-kilometres showing little change (Tables 1 and 2). Figure 3 shows the trend from 1994 to 2003.

In 2003, the change in the overall capacity was slightly different than the change in traffic (Figure 4). Hence, although the average passenger load factor on total scheduled services (domestic plus international) remained at 71 per cent, the weight load factor decreased to 60 per cent (Table 3).

On a regional basis, some 34 per cent of the total traffic volume (passengers/freight/mail) was carried by North American airlines. Asia/Pacific and European airlines carried 28 per cent each, Latin American/Caribbean and Middle East airlines 4 per cent each and African airlines 2 per cent (Table 4).

Data for individual countries (Tables 5 and 6) show that in 2003 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, Germany, the United Kingdom and Japan (about 32, 5, 5 and 5, respectively). On international services, some 36 per cent of all traffic was carried by the airlines of the United States, Germany, the United Kingdom and Japan (about 16, 8, 7 and 5 per cent, respectively).

Non-scheduled Commercial Operations

It is estimated that in 2003 total international non-scheduled passenger-kilometres decreased by about 5 per cent compared with 2002, with the non-scheduled share of overall international air passenger traffic remaining around 12 per cent

^{1.} See the footnote to Table 1 in Appendix 12.



Figure 3. Scheduled traffic tonne-kilometres performed, 1994 – 2003



Figure 5. International non-scheduled traffic passenger-kilometres performed, 1994 – 2003



Figure 4. Scheduled traffic achieved load factors, 1994 – 2003

(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 2003, the 25 largest airports in the world handled some 1 026 million passengers, according

to preliminary estimates (Table 8). During the same period, the airports concerned (16 of which are located in North America, 6 in Europe and 3 in Asia) also handled some 11 million commercial air transport movements.

3. FINANCES

Airlines

Preliminary estimates for 2003 indicate that the world's scheduled airlines as a whole experienced an operating loss for the third year in succession after 8 consecutive years (including 1993) of operating profits (Table 9 and Figure 6).

The operating revenues of scheduled airlines of ICAO Contracting States are tentatively estimated at 312900 million² in 2003 and operating expenses for the same airlines at 315700 million, giving an operating loss of 0.9 per cent of operating revenues. This follows an operating loss of 1.6 per cent in 2002.

^{2.} All amounts listed in this chapter are in U.S. dollars.



Figure 6. Scheduled airlines operating and net, 1994 – 2003

Per tonne-kilometre, operating revenues increased from 72.1 cents in 2002 to an estimated 72.9 cents in 2003, while operating expenses increased from 73.3 cents to an estimated 73.6 cents.

Airports and Air Navigation Services

Airports and providers of air navigation services experienced a difficult year with regard to their financial situations. Due to various unfavourable factors (the most important being the outbreak of SARS) air traffic volumes were still below those reached in 2000. Entities managing airports and air navigation services in Asia suffered more than in other parts of the world. Several Asian airports reduced temporarily their airport charges to support the airline industry in the region's severe crisis. Primarily because of the high proportion of fixed costs and the limited revenues from non-aeronautical activities providers of air navigation services had a more difficult financial situation than airports during 2003. In North America and Europe, the pressure from low-cost carriers on reduced airport charges increased.

4. COMMERCIAL DEVELOPMENTS

Carriers

On the basis of schedules published in multilateral airline schedule guides, it is estimated that at the

end of 2003 there were approximately 806 air carriers worldwide providing international and/or domestic scheduled passenger services (including 80 air carriers which provide both scheduled passenger and all-freight services) and about 84 operating only scheduled all-freight services. There were approximately 890 air carriers operating in 2003, which compared closely with the 896 in 2002.

The trend of privatization of government-owned airlines continued in 2003. Two airlines achieved their privatization aims. Another 35 governmentowned 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.

Airports and Air Navigation Services

The trend towards commercialization and privatization of airports and air navigation services was slow. Compared with airports, private involvement in the provision of air navigation services is still limited.

Aircraft

Between 1994 and 2003, the reported number of commercial air transport aircraft in service increased by about 34 per cent from 16 070 to 21 561 (excluding aircraft with a maximum take-off mass of less than 9 000 kg). Within these totals, turbojet aircraft numbers increased by about 33 per cent, from 13 033 to 17 355, over the same period (Figure 7 and Table 10).

In 2003, 861 jet aircraft were ordered (compared with 497 in 2002) and 917 aircraft were delivered (compared with 999 in 2002). The backlog of unfilled orders at the end of 2003 was 3 272 aircraft compared with 3 407 at the end of 2002.

The financial commitment in terms of jet aircraft orders placed with the major aircraft manufacturers in 2003 is estimated to be about \$60 billion.

The number of turboprop aircraft ordered in 2003 was 66, with 54 aircraft delivered during the year.



Figure 7. Total commercial air transport fleet 1994 – 2003

Most active aircraft type transactions, 2003

Aircraft	Orders	Deliveries	Backlog
Embraer RJ	216	97	433
Boeing 737	182	166	831
Canadair RJ	124	224	271
Airbus 320	104	117	432
Airbus 319	43	76	361

5. ECONOMIC REGULATION

The fifth Worldwide Air Transport Conference, with the theme "Challenges and Opportunities of Liberalization", was held at Headquarters from 24 to 28 March. The Conference adopted specific recommendations on the liberalization of air carrier ownership and control and on ICAO's future role in economic regulation as well as relations with the World Trade Organization (WTO-OMC). The results also included a Declaration of Global Principles for the Liberalization of International Air Transport, model clauses for optional use in air services agreements and other policy guidance material, and conclusions on all of the agenda items. Among the results, a large number of proposed actions were directed to States and follow-up action directed to ICAO. The Conference outcome responded comprehensively to the Council's objective of a global framework for the liberalization of international air transport.

During the year, a total of 66 bilateral air services agreements were reportedly concluded or amended by 64 States, including two "open skies" agreements between Chile and Uruguay in February, and between Albania and the United States in September. Continuing a trend, over 70 per cent of these agreements and amendments contained some form of liberalized regulatory arrangements. By December 2003, 89 open skies agreements had been concluded (14 in the last three years) involving 74 States. Sixty per cent of the agreements involved developing countries.

Air transport liberalization activity also continued at the regional level in response to the increasingly competitive environment and liberalization challenge. Regional and/or plurilateral liberalization arrangements have the basic objective of providing greater market access and improving services among the member States concerned. By December, there were at least 11 such arrangements with several other potential arrangements in the pipeline. During the year, there were five noteworthy regional developments: the Pacific Islands Air Services Agreement (PIASA) was formally endorsed by Ministers of the Pacific Islands Forum in July and was signed by four of 16 member States in August. PIASA will come into force when six members have ratified it, and will progressively create a single aviation market in the subregion; Tonga deposited, in September, its accession instrument to become a party of the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT) known as "Kona open skies" agreement, which had already been signed by seven States; Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam signed, in December, a Multilateral Agreement on Air Services, which formalizes a liberalization arrangement for the four States earlier agreed in 1998; the Association of Caribbean States (ACS) finalized, in July, a draft Air Transport Agreement (ATA) to create an ACS Common Aviation Area, which will be signed during 2004; the European Union (EU) had several significant developments with respect to air services agreement negotiations, the application of EU competition laws, revision of the third package, and unfair competition by subsidized airlines, all of which have global implications.

A new negotiating dynamic involving air services agreements by third parties with the EU member States was created, following the judgements of the European Court of Justice in November 2002, which ruled against certain provisions in some EU members' "open skies" agreements with the United States. In June, the Council of the European Union conferred on the European Commission a mandate to negotiate air services agreements on behalf of all member States with the United States for the creation of an Open Aviation Area (OAA) between the two territories, as well as to negotiate with third countries on the replacement of certain specific provisions in the existing agreements. The Council of the European Union also reached an agreement on a general approach to a draft Regulation on the negotiation and implementation of air services agreements between member States and third countries. In September, the European Parliament proposed that the prioritization of countries for such negotiations (in the first stage, the European Commission would negotiate with the United States and subsequently with third countries which likewise have or are seeking to achieve a liberalized market) and the reduction of member States' procedural obligations be included in a draft Regulation. In October, the European Commission started negotiations with the United States, and the Council of the European Union reached a political agreement on texts of a draft Regulation, which address the Parliament's concerns. Concerning other EU developments, the European Commission proposed, in February, to extend the scope of its competition law authority to agreements between EU and third country airlines. In March, the European Commission started a consultation process about the revision of the Regulations constituting the third package for liberalization of intra-EU air transport. In October, the Council of the European Union agreed to take action against unfair competition from subsidized third country airlines. Proposed regulations would permit the European Commission to impose duties on airlines benefitting from subsidies, including non-commercial advantages.

At the multilateral level, the Council for Trade in Services (CTS) of the WTO-OMC decided to end a first review process of the Annex on Air Transport Services of the General Agreements on Trade in Services (GATS), which started in 2000, as well as any further discussions on its expansion. As a result of this review, the Annex will remain unchanged and continue to cover the three so-called "soft" rights, namely: aircraft repair and maintenance, selling and marketing of air transport, and computer reservation system (CRS) services. Under paragraph 5 of the Annex, which requires that a review be conducted at least every five years, the CTS also decided that the second review would commence at the last regular meeting of the CTS in December 2005.

At the national level, several States launched a review process of their air transport policies in light of the global trend toward increased liberalization. Some of these policies seek to liberalize air transport services, in whole or in part, on a unilateral basis without requiring comparable rights from bilateral partners in return. For example, China announced in August an "open skies" policy for services to/from Hainan Province on a unilateral basis, which would allow foreign airlines to operate unlimited passenger and cargo services to the province. In October, India announced a unilateral "open skies" policy for designated airlines of the Association of Southeast Asian Nations (ASEAN), enabling them to operate daily flights to the country's four major airports as well as 18 tourist destinations. India also expanded its "open skies" policy for a winter-operation season, allowing more access by all foreign carriers under certain conditions.

Airline alliances, particularly those involving major carriers, continued to attract attention from regulatory authorities. One significant development was the proposed creation of a cross-border European airline group between Air France and KLM under a single holding company, which is expected to integrate carriers belonging to the Wings alliance into the SkyTeam group. In the meantime, the European Commission approved two alliance agreements of British Airways with SN Brussels Airlines and Iberia. In the United States, the Department of Transportation (DOT) approved and granted antitrust immunity to an alliance agreement between United Airlines and Asiana Airlines, and authorized a codesharing agreement between American Airlines and British Airways except for routes between London and the United States. The DOT also conditionally allowed an extensive codesharing agreement among Continental Airlines, Delta Air Lines and Northwest Airlines. In the Pacific Region, both the Australian Competition and Consumer Commission (ACCC) and the New Zealand Commerce Commission rejected a proposed trans-Tasman alliance agreement between Qantas Airways and Air New Zealand, while the

ACCC authorized a tentative continuation of a Kangaroo-route alliance agreement between Qantas Airways and British Airways.

E-commerce technology has increasingly had an impact on the airline and travel industries in both product distribution and regulation. Although the majority of airline ticket sales are still being made through travel agents, online sales have increased significantly, especially in countries where Internet and credit card use are high. For low-cost carriers, ticket sales are now primarily being made online. The use of the Internet, through third-party providers and directly by consumers and other businesses, has enabled airlines to considerably reduce distribution costs, including agency commissions and CRS booking fees. To address the changes in airline product distribution, the existing CRS rules or regulations were reviewed and amended by several States. In October, Transport Canada proposed amendments to its CRS regulations, which would eliminate several provisions in the existing regulations. In December, the United States DOT decided to eliminate most of its existing CRS rules, concluding that those rules are no longer necessary.

Many States continued to provide varying forms of State aids to their national airlines facing financial difficulties caused by the economic slowdown and the impact of the SARS and the Iraq crisis. For example, the Japanese Government provided, in September, an emergency loan to Japan Airlines System and All Nippon Airways through the Development Bank of Japan. The Omani Government announced, in October, capital injection into minority-owned Oman Air in the form of a soft loan. The South African Government gave, in August, a debt guarantee to South African Airways. The Swiss Government provided, in June, limited aids such as fuel tax exemption to Swiss International Air Lines. Some bankruptcy codes also act as an indirect form of State assistance for bankrupted airlines, such as US Airways (bankruptcy protection from August 2002 to March 2003), United Airlines (from December 2002), Hawaiian Airlines (from March 2003), Avianca (a part of Alianza Summa, from March 2003) and Air Canada (from April 2003). Despite these measures, many carriers ceased operations; Aces (a part of Alianza Summa), Armenian Airlines and Nigeria Airways were a few examples of such liquidated carriers.

6. CNS/ATM

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 and safety cases in order to facilitate the implementation of new systems.

The Eleventh Air Navigation Conference, held in Montréal from 22 September to 3 October, endorsed a global ATM operational concept for the implementation of CNS/ATM systems and technologies. This concept outlines a range of conceptual changes that would evolve through the planning horizon (up to and beyond the year 2025) and will serve as the common framework to guide planning for implementation of ATM systems and to focus all ATM development work. The conference also agreed upon a framework for a comprehensive systems approach to safety and developed recommendations on safety certification and regulation and on the concept of required total system performance (RTSP) to ensure that future ATM systems meet the expectations of the aviation community. The Conference also addressed capacity enhancement measures taken by States and regions to accommodate the increasing traffic and stressed the importance of runway safety programmes to ensure that, as capacity increases, runway safety is not eroded.

Substantial progress was made in several regions toward the implementation of reduced separation minima based on CNS/ATM systems and concepts. Preparations continued with a view to the early introduction of required navigation performance (RNP 4) over parts of the Pacific.

Operational use of controller-pilot data link communications (CPDLC) in accordance with relevant ICAO provisions, or the planning for its introduction, continued, and programmes to implement the ATS message handling system (AMHS) were progressed in some ICAO regions. Furthermore, automatic dependent surveillance (ADS) trials were conducted in many ICAO regions with particular emphasis on ADS-broadcast (ADS-B). 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 will eventually lead to more efficient utilization of the airspace while increasing capacity.

Communications

Fourteen high frequency data link (HFDL) ground stations were implemented by Aeronautical Radio, Incorporated (ARINC) at geographically diverse locations worldwide, which transmit on 30 active frequencies and provide near-global coverage. Installation of additional ground systems commenced. The service is initially intended for aeronautical operational control (AOC), but a number of ATS providers (in Canada, Portugal and the United Kingdom) started pre-operational trials of the link for air traffic service (ATS) communications (initially for waypoint position reporting).

The first implementation of VDL Mode 2, in support of controller-pilot data link communications (CPDLC) and in an ATN environment, was completed at Miami Air Route Traffic Control Centre (ARTCC) in October 2002. The programme, which was called "CPDLC Build 1", involved thirteen VDL Mode 2 ground stations and a number of suitably equipped aircraft (the number is presently around 30 and is growing). CPDLC is an operational success in Miami. As an example, the use of the data link for routine communications (employing four services, namely "Transfer of Communications", "Initial Contact", "Altimeter Setting" and "Informational Menu Text") resulted in approximately 20 hours of savings in the voice channel occupancy time as of August 2003.

As part of the LINK 2000+ programme of EURO-CONTROL, CPDLC (over VDL Mode 2 and ATN) was being implemented to supplement air-ground voice communications in Europe. Nine ground stations were installed to provide coverage for the Maastricht upper area control centre (UACC) area. To encourage early airline equipage, a pioneer support scheme was set up whereby support was provided in the form of upgrade funding, integration and pre-operational tests, to the first hundred aircraft. So far, forty-five aircraft were designated to benefit from that scheme.

Navigation

Implementation of GNSS (mainly GPS) based enroute and non-precision approach (NPA) operations continued in ICAO regions. These activities were supported by the development of procedures and criteria for approach with vertical guidance (APV) and Category I operations based on satellite-based augmentation systems (SBAS) and ground-based augmentation systems (GBAS), respectively.

The first operational SBAS, namely the Wide Area Augmentation System (WAAS), was commissioned in the United States on 10 July for air navigation including lateral navigation (LNAV)/vertical navigation (VNAV) approaches. This initial WAAS capability also provides improved guidance to users in en route and departure phases of flight.

Safeguarding the aeronautical radio frequency spectrum

The Radiocommunication Conference World (2003) (WRC-2003) of the International Telecommunication Union (ITU), which was held in Geneva, Switzerland, from 9 June to 4 July 2003, revised parts of the ITU Radio Regulations, including a number of issues relating to the continuing availability and use of radio-frequency spectrum by aviation. The outcome of the Conference was favourable to civil aviation and was in full conformity with the ICAO position on all key issues. The Conference also established the agenda for the next WRC, planned for 2007, which includes a number of aeronautical issues.

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. Mode S extended squitter gained acceptance as short-term support for ADS-B. Also, VDL Mode 4 and the universal access transceiver (UAT) were considered for long-term use in some regions. Implementation of modern surveillance systems progressed in most regions. ADS-B operational trials progressed in a number of States.

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.

Implementation of reduced vertical separation minima took place in the Middle East and parts of western Asia in November, and is planned to be implemented in Canada, the Caribbean and South American Regions and in the continental United States in 2005.

Substantial efficiency benefits were gained as a result of the implementation of a revised air traffic services route structure from Asia to the Middle East and Europe, south of the Himalayas (EMARSSH). Further refinements to this route network and associated procedures were undertaken in the light of operational experience.

Substantial efforts were made by States concerned and ICAO in preparing the Contingency Routing Scheme for Asia/Middle East/Europe — 2003 (CRAME-03). The objectives of this scheme were to ensure the continued safety of air navigation within flight information regions (FIRs) affected by airspace closures and minimize effects on international civil aviation during military action occurring in the Middle East area. The contingency routing scheme provided alternative routes to and from Asia, the Middle East and Europe, which allowed aircraft operators to conduct operations with a minimum of disruption.

Further work on the prevention of runway incursions continued worldwide. As part of a global safety education and awareness campaign, seminars were held in Cairo and Singapore. Work on a runway safety tool kit was commenced, and proposals for the amendment of global air traffic management procedures associated with runway operations were introduced.

7. AERODROMES

Studies continued on airport pavement design and evaluation procedures for analysing complex loading by new larger aeroplanes such as the Airbus A380 and Boeing B777 with 6 or more wheels per main landing gear strut. The full-scale pavement testing research project in one State, on the subject of complex loadings, was completed, while testing continued in another State. Amendment 4 to Annex 14 — *Aerodromes* (Volume I) introduced a new requirement for aerodromes to be certified by States. ICAO continued to facilitate the implementation in States of the aerodrome certification requirements through workshops.

ICAO continued to participate in various bird hazard reduction workshops and committees, such as the new Caribbean and South American Regional Bird Hazard Prevention Committee which met in Santiago, Chile, in October. This and other meetings were held, recognizing that Amendment 5 to Annex 14, Volume I, which became applicable on 27 November, upgraded the existing Recommended Practices on bird hazards to Standards, while introducing a new Recommended Practice on the need for bird strike reporting to the ICAO Bird Strike Information System (IBIS).

Research work is in progress outside ICAO on the issue of identifying a suitable alternative to halons. Furthermore, a new quality of firefighting foam is being studied as it promises to be more effective than current types and development of new specifications for this type of foam is being progressed.

8. AERONAUTICAL INFORMATION

The need and importance for the timely provision of quality aeronautical information and terrain data have changed significantly in recent years, as they have become critical components of data-dependent on-board navigation systems, which have been increasingly used for area navigation. The trend towards the availability of aeronautical information in electronic formats continued, notably, with more States providing aeronautical information publication (AIP) and charts on CD-ROM media or through the Internet, and with the continuing implementation of a regional aeronautical database covering a large part of Europe.

The joint RTCA Special Committee 193/EURO-CAE Working Group 44, with ICAO's participation, continued its work on user requirements for electronic terrain, obstacle and airport mapping data by developing further data exchange formats on the basis of the International Organization for Standardization (ISO) 19100 series of standards. The Society of Automotive Engineers (SAE) G-10 Aerospace Behavioural Engineering Technology Committee on Aeronautical Charting continued the development of specifications concerning electronic aeronautical chart displays. ICAO participated actively in the work of this group with the aim of furthering the development of ICAO provisions on this subject.

The Eleventh Air Navigation Conference, among the many other subjects, addressed concepts aimed at enhancing the global compatibility and interoperability of aeronautical data formats. In October, the first meeting of the Aeronautical Use of the Public Internet Study Group (AUPISG) was held and the work was initiated on guidance material concerning the use of the Internet for the provision of air navigation information.

9. AERONAUTICAL METEOROLOGY

The improved automatic meteorological observing systems are increasingly used by States in the provision of observations for aviation. The use of meteorological information in the terminal area to support measures to increase airport capacity continued to be studied by States, in particular in the European Region. In this context, the development of a new meteorological report was examined. Renewed interest was shown in a number of States in conducting research on improving the quality and timeliness of forecasts of icing and turbulence.

Progress continued on 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 three ICAO satellite broadcasts. These broadcasts provide States and users with global world area forecast system (WAFS) forecasts and operational meteorological (OPMET) information, such as aviation routine weather reports (METARs), aerodrome forecasts (TAFs), information concerning en-route weather phenomena, which may affect the safety of aircraft operations (SIGMETs), and tropical cyclone and volcanic ash advisories.

Progress was made in achieving the full implementation of the seven tropical advisory centres (TCACs) all of which issued, or will soon issue, tropical cyclone advisories in accordance with ICAO provisions. 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.

10. 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 four geostationary (GEOSAR) satellites (plus two spares) providing almost immediate distress alerts for 406 MHz beacons transmitting in their field of view. The first METEOSAT Second Generation (MSG-1) spacecraft of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) was launched in August 2002. Extensive commissioning tests were completed by the end of 2003. The MSG GEOSAR system will complement the COSPAS-SARSAT real-time global satellite alerting capability.

From September 1982 to December 2002, the COSPAS-SARSAT system contributed to the rescue of more than 15 700 persons in over 4 500 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.

11. CONGESTION

ICAO continued to design measures to limit passenger traffic disruptions that might occur as a result of intensified security regimes. Inbound border clearance delays of passengers and crews are being addressed by updated specifications for the high-technology enhancement of machine readable passports and machine-assisted inspection applications. In May, ICAO announced a global, harmonized "blueprint" for the integration of biometric identification information in passports and other machine readable travel documents as an additional enhancement. Further progress was made in the implementation of advance passenger information systems in several States.

Increased congestion due to the introduction of enhanced outbound security measures at check-in and screening points continued to pose challenges for airline and airport management. Implementation of new Annex 17 Standard 4.4.8, requiring 100 per cent screening of originating hold baggage by 2006, will require installation of new technology and innovative management techniques to mitigate the impact on terminal congestion. Proposed new measures for the advance screening of cargo shipments for customs and "supply chain security" purposes also gave rise to concerns about traffic delays and congestion.

12. SAFETY

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 2003 there were 6 aircraft accidents with passenger fatalities involving aircraft with a maximum certificated take-off mass of more than 2 250 kg. The number of passenger fatalities involved was 334. This compares with 14 fatal accidents and 791 passenger fatalities in 2002 (Table 11). Between 2002 and 2003, there was little change in traffic, hence the number of passenger fatalities per 100 million passenger-kilometres decreased to 0.01 from 0.03 in 2002. Similarly, the number of fatal aircraft accidents per 100 million aircraft-kilometres flown decreased to 0.02 from 0.06 in 2002 and the number of fatal aircraft accidents per 100 000 landings decreased to 0.03 from 0.07 in 2002 (Figure 8).



Figure 8. Aircraft accident statistics 1984 – 2003

The safety levels are significantly different for the various types of aircraft operated on scheduled passenger services. For instance, in turbojet aircraft operations, which account for over 98 per cent of the total volume of scheduled traffic (in terms of passenger-kilometres performed), there were 4 accidents in 2003 with 313 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for less than 2 per cent of the scheduled traffic volume, there were 2 accidents with 21 passenger fatalities. The fatality rate for turbojet aircraft operations was, therefore, far lower

Non-scheduled Commercial Operations

than for propeller-driven aircraft.

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 26 accidents involving passenger fatalities on aircraft with a maximum certificated take-off mass of more than 2 250 kg in 2003 (including 1 aircraft operating all-cargo services with passengers on board) compared with 19 in 2002. These accidents accounted for 349 passenger fatalities in 2003 compared with 201 in 2002.

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 7 accidents involving 196 passenger fatalities in 2003.

13. SAFETY OVERSIGHT

The ICAO Universal Safety Oversight Audit Programme (USOAP), established in January 1999, continued its audit activities. By the end of 2003, 181 Contracting States and 5 territories had been audited, and 121 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.

14. HUMAN FACTORS

The first ICAO-IATA Line Operations Safety Audit (LOSA) and Threat and Error Management (TEM) Conference was held in Dublin, Ireland, from 5 to 7 November with the objective of presenting state-of-the-art industry knowledge of TEM training.

The first Iberoamerican Conference on Safety and Training in Civil Aviation was held in Madrid, Spain, from 14 to 18 July with the objective of providing a forum for aviation organizations in the Iberian Peninsula, Central and South America and the Caribbean to exchange information and discuss contemporary safety and training problems specific to the Iberoamerican context, as well as to identify viable solutions. The Conference also aimed at developing links and cooperation among Iberoamerican aviation organizations.

15. PERSONNEL LICENSING AND TRAINING

Since January 2003, an additional centre has joined the TRAINAIR Programme, bringing the total number of members to 40. The member civil aviation training centres' course development activities continued to expand. As of December, 135 Standardized Training Packages (STPs) were completed or were under development by members.

Training continued within all ICAO Regions for 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. 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. In cooperation with ICAO the FAA is developing additional Government Safety Inspector STPs.

Two Human Resource Planning Seminars were held during 2003, one for the CAR/SAM Region in Cartagena, Colombia, from 14 to 18 July, and the other addressed to the East Africa Region in Nairobi, Kenya, from 17 to 21 November.

A new part of the ICAO Training Manual (Doc 7192)³, Part D-1 — Aircraft Maintenance (Technician/Engineer/Mechanic) was published.

The Ninth Global TRAINAIR Training Symposium and Conference was held in Marrakech, Morocco, from 8 to 12 September. The Conference was one of the largest ICAO meetings strictly dedicated to human resource development and training. Over 284 participants attended from 54 States and 4 international organizations. Steps were taken during the Conference that will nurture international cooperation among all civil aviation training centres and enhance the ability of the TRAINAIR Programme to meet future civil aviation training challenges.

16. SECURITY

During the year, 34 acts of unlawful interference were recorded. These acts were 3 unlawful seizures, 5 attempted seizures, 10 facility attacks, 3 in-flight attacks, 4 sabotages, 1 attempted sabotage and 8 other acts of unlawful interference (Table 12). These acts are included in the annual statistics to assist in the analysis of trends and developments (Figure 9).

Significant progress was achieved in implementing the ICAO Aviation Security Plan of Action, which was approved by the Council in June 2002. The Plan of Action continued to be very dependent on States' voluntary contributions.

The Universal Security Audit Programme (USAP) successfully completed its first year of aviation security audits, fulfilling its objective of auditing a total of 20 States by December. The audits conducted to date included States from all of the ICAO regions, and included a cross section of States in terms of size and complexity of airport operations.

^{3.} This relates to the English language only. The French, Russian and Spanish versions will follow.



Figure 9. Aviation security statistics 1984 – 2003

Steps are being taken to assist States to remedy deficiencies identified during these audits. Also in 2003, six USAP auditor training and certification courses were conducted in six different ICAO regions. As a consequence, the USAP now has 100 certified aviation security experts from 53 States who have been trained and certified as ICAO USAP Auditors.

To assist States in the implementation of Standards and Recommended Practices (SARPs) contained in Annex 17, development of the aviation security training programme continued to be treated with the highest priority. Fifty-seven training courses were held at ICAO-approved Aviation Security Training Centres (ASTCs) throughout the world. A new Aviation Security Training Packages (ASTP), namely National Auditors Inspectors, is being developed. In addition, a Hostage Negotiation Course (First Level) was finalized. With a view to promoting the application of management principles and best practices to the implementation of Annex 17 SARPs, arrangements were made with Concordia University in Montréal to introduce aviation security training for managers, based on distance learning using the Internet.

The global, harmonized blueprint for the integration of biometric identification information into passports and other machine readable travel documents, adopted by ICAO in May (reported earlier, under Congestion), is expected to lead to speedier passage of travellers through airport controls, heightened aviation security and added protection against identity theft.

17. WARSAW SYSTEM — MONTREAL CONVENTION (1999)

On 4 November, the *Convention for the Unification* of *Certain Rules for International Carriage by Air*, done at Montréal on 28 May 1999, entered into force. By the end of 2003, it had 34 States parties.

18. ASSISTANCE IN THE FIELD OF AVIATION WAR RISK INSURANCE

Pursuant to Resolution A33-20: Coordinated approach in providing assistance in the field of aviation war risk insurance and as recommended by the Review Group of the Special Group on Aviation War Risk Insurance (SGWI-RG), the Council approved, during its 169th Session, adjustments to the global aviation war risk insurance scheme ("Globaltime") and the draft Participation Agreement, in light of the conditions of participation set by certain States.

The Council decided to retain Globaltime on a contingency basis. Subject to effective participation by States representing at least 51 per cent of ICAO contribution rates (Resolution A33-26 being used as the basis for determining the provision of guarantees to the scheme), Globaltime will be activated when there is a further failure of the commercial insurance market as determined by the ICAO Council, in which event, the Insurance Entity shall commence its operations, possibly at short notice (State letter LE 4/64 – 03/65 dated 30 June 2003 refers). By the end of 2003, the 51 per cent threshold of intentions to participate had not been reached.

19. ENVIRONMENTAL PROTECTION

Regarding the settlement of differences between the United States and 15 European States (2000) relating to the European "Hushkits" Regulation No. 925/1999 (which was subsequently repealed by Directive 2002/30/EC), the President of the Council continued to act as Conciliator, with the consent of the Parties. Further negotiations led to a settlement which was presented to the Council during its 170th Session. The Council recorded the solution agreed between the Parties, namely the discontinuance of the proceedings.

ICAO's work in 2003 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.

Work continued on developing 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 recertification 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. Work continued on analysing the possible use of marked-based measures such as an emissions-trading system, voluntary measures and emissions-related levies, in close cooperation with the United Nations Framework Convention on Climate Change (UNFCCC).

20. AVIATION MEDICINE

Severe acute respiratory syndrome (SARS)

As a consequence of the outbreak of Severe Acute Respiratory Syndrome (SARS) in early 2003, ICAO took urgent action to assist airport and governmental authorities in the affected areas. The Organization convened a three-day meeting in Singapore during the first week of June with the participation of air transport and health officials from Singapore and representatives of IATA, ICAO, and WHO. A set of eight anti-SARS protective measures for international airports was developed and is now available on ICAO's website (www.icao.int). This was followed by ICAO inspection visits to selected airports in the affected areas to ascertain that the recommended protective measures had been fully implemented. In early November, a second ICAO meeting was held in Singapore with the participation of air transport and health officials from the region. This meeting concluded with a proposal of a harmonized health declaration card for air travellers and an airport contingency plan providing a level of preparedness at airports sufficient to prevent the spread of resurgent SARS or a similar communicable disease.

Air Passenger Health Issues

Following a symposium on Selected Aspects of Passenger Health in Air Travel, held in Dubrovnik

in October 2002, in which ICAO participated and made a presentation, the ECAC Directors General of Civil Aviation established a working group on air passenger health issues. ICAO participated in the first meeting of this working group in Vienna in March and continues to closely monitor the progress made by this working group. Concurrently, ICAO established an in-house multidisciplinary working group on air passenger health issues. The main objective of this working group is to develop an ICAO policy for passenger health and well-being.

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.

21. TECHNICAL CO-OPERATION

The ICAO Technical Co-operation Programme for 2003 was valued at \$120.2 million, of which \$105.4 million (or 88 per cent) was implemented.

During the year, the Technical Co-operation Bureau executed 123 projects in 56 developing countries and a total of 18 new and revised large-scale projects were approved. The TCB employed 420 experts from 38 countries to work in its field projects. A total of 507 fellowships were awarded and procurement expenditures for field projects totalled \$82.82 million.

A notable expansion of the Procurement service, undertaken by ICAO on behalf of its Contracting States, resulted in purchases totalling almost \$80 million, compared to an average amount of \$35.12 million during the previous five years. Among the major procurements in 2003 were a contract worth \$16.9 million for firefighting vehicles, \$11 million for an Area Control Centre, as well as significant procurement support which was provided to the United Nations Mission in Kosovo (UNMIK). In addition, ICAO supplied airport Upon the rise and spread of Severe Acute Respiratory Syndrome (SARS) in early 2003 in some States in the Asia and Pacific Region, a subregional project entitled Anti-SARS Airport Evaluation was implemented by ICAO. Under this project, funded by the Governments of Singapore, China and the Hong Kong Special Administrative Region (China), recommendations on protective measures and guidelines for the inspection and evaluation of airports for controlling SARS and preventing its spread through air travel were developed with the cooperation of the Civil Aviation Authority of Singapore, IATA and WHO, as well as local specialists in Singapore dealing with SARS cases. Additionally, a draft Harmonized Health Declaration Card and a Phased Contingency Response Plan were developed for use in the event of a resurgence in SARS or a communicable disease involving airports/aircraft passengers. The project experts inspected airports and provided classroom training to local medical staff and other officials in aviation medicine including SARS related aspects.

ICAO broadened its technical cooperation field of expertise by responding to a request from the Airports of Thailand Company (AOT) Limited for technical cooperation in the complex task of the smooth transfer of operations from the existing Don Muang International Airport, Bangkok, which is one of the twelve busiest airports in the world, to the new Suvarnabhumi International Airport, Bangkok, which is expected to be operational by September 2005. After carrying out a preliminary survey, ICAO provided assistance to AOT in strategic and detailed planning of the multiple disciplines involved in the transfer of operations and in the coordination thereof to ensure uninterrupted service through the transfer process.

THE ORGANIZATION

- ★ On 3 March, the Council appointed Dr. Taïeb Chérif (Algeria) as the new Secretary General of ICAO for a three-year term, beginning 1 August. He succeeded Mr. Renato Cláudio Costa Pereira (Brazil) who had held the position since 1997. Dr. Chérif, whose aviation career spans three decades, had been the Representative of Algeria on the Council since 1998. In that capacity, he had been active in the Air Transport and Finance Committees of the Council as well as various specialized working groups. On 1 August Dr. Chérif assumed office.
- ★ The Organization hosted a Worldwide Air Transport Conference on "Challenges and Opportunities of Liberalization" from 24 to 29 March at Headquarters, which was attended by some 800 participants from 145 ICAO Contracting States and 29 organizations. The Conference was preceded by a two-day public seminar on 22 and 23 March during which prominent speakers from industry, government and academia discussed various strategic issues facing the air transport industry and regulators. The Conference concluded by approving by acclamation a Declaration of Global Principles to "create an environment in which international air transport may develop and flourish in a stable, efficient and economical manner without compromising safety and security and while respecting social and labour standards".
- ★ As a consequence of the entry into force on 28 November 2002 of the 1990 amendment of Article 50 (a) of the Chicago Convention, at its 34th Session (Extraordinary) held in Montréal on 31 March and 1 April, the ICAO Assembly elected Chile, Singapore and South Africa to the Council of the Organization. The Assembly was presided over by Dr. Assad Kotaite, President of the ICAO Council. The number of seats on the Council was increased from 33 to 36 in November 2002, to reflect the growth in the number of Contracting States of the Organization, which has increased from 146 in 1980 to the current 188.
- ★ On 18 June, the Council appointed 8 members (out of a total of 11 members who can be appointed) to the Governing Body of the International Financial Facility for Aviation Safety (IFFAS), thus making the Facility fully operational. The members are Argentina, Chile, Egypt, France, India, Netherlands, Nigeria, and Pakistan. IFFAS will assist Contracting States in financing safety-related projects identified primarily through the ICAO Universal Safety Oversight Audit Programme (USOAP).
- ★ Efforts initiated by the Organization resulted, on 15 September, in a historic agreement between Greece and Turkey for the improvement of the air traffic services (ATS) route network over the Aegean Sea. The agreement, reached after extensive negotiations between Greece and Turkey, and fully supported by ICAO and the International Air Transport Association (IATA), addresses the national requirements and operational aspects of a new ATS route network proposal that had been developed by airspace users.
- ★ The Eleventh Air Navigation Conference of the Organization was held from 22 September to 3 October at Headquarters. The Conference endorsed an operational concept for air navigation services worldwide, which will enhance aviation safety and improve passenger convenience in terms of fewer delays and shorter flight times. The Conference reconfirmed that safety was the most important element of the overall performance of the global air traffic management system.

- ★ On 4 November, the Convention for the Unification of Certain Rules for International Carriage by Air (Montreal Convention of 1999) entered into force. This Convention relating to compensation in cases of international air accidents is envisaged to replace the existing Warsaw System. The conditions for the Convention's entry into force were fulfilled when the 30th ratification was deposited with ICAO by the United States 60 days earlier.
- ★ In December, the Council recorded the discontinuance of the proceedings regarding the settlement of differences between the United States and 15 European States (2000) relating to the European "Hushkits" Regulations (EC) No. 925/1999. The settlement was agreed between the Parties following further negotiations, during which the President of the Council acted as Conciliator.
- ★ International Civil Aviation Day, celebrated annually to mark the creation of ICAO on 7 December 1944, had as its theme "For 60 Years...Setting Standards for International Civil Aviation".