Doc 9916

International Civil Aviation Organization

ANNUAL REPORT OF THE COUNCIL

2008

"WHEREAS the future development of international civil aviation can greatly help to create and preserve friendship and understanding among the nations and peoples of the world, yet its abuse can become a threat to the general security; and

"WHEREAS it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends;

"THEREFORE, the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically;

"Have accordingly concluded this Convention to that end."

Preamble to the
Convention on International Civil Aviation
Signed at Chicago, on 7 December 1944

MESSAGE FROM THE PRESIDENT OF THE COUNCIL

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 2008 prepared in compliance with Article 54(a) of the Convention on International Civil Aviation. It constitutes documentation for the next regular Session of the Assembly, which will be convened in 2010, 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 contrast between early 2008 and the fourth quarter of the year was as dramatic as one could have imagined. The onset in the Fall of what was already being perceived as a global financial crisis affected all major stakeholders, with an anticipated ripple effect throughout air transport and related industries.

In this context, ICAO's shift to a performance-driven and results-based management style, initiated a few years ago, demonstrates its effectiveness with Contracting States in helping them achieve consistent improvements in the safety, security, sustainability and efficiency of the global air transport system.

During the year, there were numerous concrete achievements emerging from this growing emphasis on performance planning and decision-making, which I believe have reinforced the ICAO work programme and made it even more relevant to civil aviation.

The focus on resolving safety issues in Africa has placed emphasis on the investment of financial and human resources thereby producing more significant results. The Africa-Indian Ocean (AFI) Comprehensive Implementation Programme developed a strategic three-pronged approach to enable States to establish and maintain a sustainable safety oversight system, to help them identify deficiencies and to promote a safety culture among AFI aviation service providers. A special Africa-Indian Ocean Regional Air Navigation meeting helped strengthen a continent-wide commitment to aviation safety through work programmes based on performance objectives with measurable outcomes and metrics.

Performance planning also underlined further application and expansion of ICAO's Global Aviation Safety Plan, a holistic approach involving a full range of initiatives, such as State Safety Plans, Safety Management Systems and the modernization of the Universal Safety Oversight Audit Programme. All of these activities are aimed at dealing with the lingering and emerging safety issues and challenges around the world, from runway incursions to unmanned aircraft systems and the number of qualified aviation personnel.

The new performance dictum also translated into more importance being given to responding rapidly and cohesively to security threats affecting civil aviation, in an increasingly harmonized and consistent manner worldwide. This involved government, industry and law enforcement agencies around the world. Discrepancies, the “weakest link in the chain”, represent the greatest risk. Many of the steps undertaken or contemplated in 2008 had a positive influence on reducing these risks and increasing public confidence in air travel. The revising of security Standards, procedures and guidance material complemented assistance to States, regional assistance, global cooperation and aviation security training.

Regarding environmental protection, emphasis was placed on practical solutions to reduce the global footprint from aviation emissions and on measures to limit the overall impact of air transport on the environment. The establishment of the ICAO Group on International Aviation and Climate Change enhanced cooperation with the United Nations Framework Convention on Climate Change in determining the optimum method for managing emissions from international aviation, with regard to a future climate change agreement to be developed in December 2009 in Copenhagen. The creation of a user-friendly Carbon Calculator on ICAO’s public website — to assess the carbon footprint of individual air travellers — gave further impetus to efforts at an outreach programme aimed at increasing public awareness of ICAO. The value of these and many other efforts were recognized by Member States contributing human and financial resources to the Environmental Protection programme.

By definition, air operations thrive on ever-greater efficiency. Substantial increases in performance standards were at the core of meetings and activities throughout the year, ranging from a very successful forum on the integration of the Next Generation (NextGen) and the Single European Sky ATM Research (SESAR) air navigation systems of the United States and Europe, respectively, to the updating and completion of documentation dealing with Performance-based Navigation and the introduction of new larger aeroplanes. A groundbreaking event, the ICAO Air Services Negotiation Conference (ICAN2008) brought together “under one roof” a number of States to negotiate and conclude bilateral air services agreements. During the Conference, a symposium was held on regional organizations which led to a greater understanding of the power of global cooperation to deal with common challenges.

Ultimately, that is what ICAO is all about — a global forum dedicated to promoting international cooperation among all members of the world aviation community, where varied and sometimes diverging national interests can be heard and considered in the development of the myriad standards, procedures and policies that comprise the global regulatory framework, which makes civil aviation an extraordinarily efficient mode of mass transportation.

This 2008 Annual Report reflects the paradigm shift now under way within ICAO — a greater focus on performance and results.

Roberto Kobeh González
President of the Council

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Published in separate Arabic, Chinese, English, French, Russian and Spanish editions by the International Civil Aviation Organization.

Printed on paper made from 100% post-consumer fibre.

NOTES

The Appendices to this report are available exclusively at:

www.icao.int/annualreports

The text of this report as printed, as well as excerpts from previous years' reports, can also be accessed there.

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

The term 1 billion represents 1 000 million.

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The International Civil Aviation Organization, created in 1944 to promote the safe and orderly development of civil aviation worldwide, is a specialized agency of the United Nations. Headquartered in Montréal, ICAO develops international air transport standards and regulations and serves as the medium for cooperation in all fields of civil aviation among its 190 Contracting States.

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THE WORLD OF AIR TRANSPORT IN 2008

THE WORLD OF AIR TRANSPORT IN 2008

GLOBAL AND REGIONAL ECONOMIC DEVELOPMENTS

The world economy went into a sharp slowdown in 2008, caused by a combination of higher energy and commodity prices in the first half and the worsening of the global financial crisis in the second half. As a result, the world gross domestic product (GDP) grew at an estimated 3.2% in real terms (see Figure 1).

Figure 1. Development in world GDP in constant prices
year-on-year changes, 1999 – 2008

The downturn in the economies of industrialized countries deepened with a GDP growth rate of 0.8%. The North American economy grew by 1% as the financial crisis worsened and the producer and consumer confidence fell. In the United States the GDP registered a growth of 1.1%, the effects of the decline in residential investment and slowdown in consumption were partly offset by exports and the relatively healthy state of businesses in the United States over the most part of the year. The Canadian economy was affected more severely (0.5%) owing to the sharp fall in energy and commodity prices.

Growth in emerging markets and developing countries weakened at 6.1% as domestic demand (particularly business investment) and net exports moderated, still above the world average yet with significant regional differences.

Africa's GDP increased by 5.2%, with oil-exporting countries benefiting from a continued surge in oil prices in the first half and with others benefiting from advantageous terms of trade and enhanced domestic policies.

The aggregate economy of the Asia and Pacific Region maintained its upward momentum with a 5% growth rate. Developing countries contributed significantly as their average GDP grew by 7.7%; the GDP of China and India also started to slow down, growing at rates of 9% and 7.3%, respectively, because of slowing of exports, although activity continued to be supported by steady investment growth and accelerated consumption. Asia's newly industrialized economies decelerated and posted a 1.5% GDP growth. Japan's GDP declined slightly by 0.6%, while the Australian and the New Zealand economies slowed down considerably with a growth of 2.1% and 0.3%, respectively.

The European Region achieved an average GDP growth of 1.3%. The European currency area posted a 0.9% rate, significantly below the 2007 level, as several countries moved closer to or fell into recession. The Central and Eastern European economies grew by approximately 2.9%, while the GDP growth of the economies of the Commonwealth of Independent States (CIS) averaged 5.5%.

Economic growth in the Latin American and the Caribbean Region eased further, showing an increase of 4.2%, as a result of moderating exports, softer commodity prices and more difficult financial conditions, particularly in the second half of the year.

The Middle East Region continued to benefit from high oil prices, robust domestic demand and an improved business environment over much of 2008. The Region's economy grew at the rate of 5.9%.

The world trade volume in goods and services is estimated to have grown by approximately 3.3%, down from a growth of 7.2% in 2007.

According to the figures released by the United Nations World Tourism Organization (UNWTO) for the period January to April 2008, international tourist arrivals grew by an estimated 2%, compared to the same period in 2007 (see Figure 2). About 924 million tourists travelled to foreign countries, some 16 million more than the previous year during the same period. The highest growth in arrivals was achieved in the Middle East at about 11% followed by Africa 5%, the Americas 4%, Asia and Pacific 2% and Europe 0.1%.

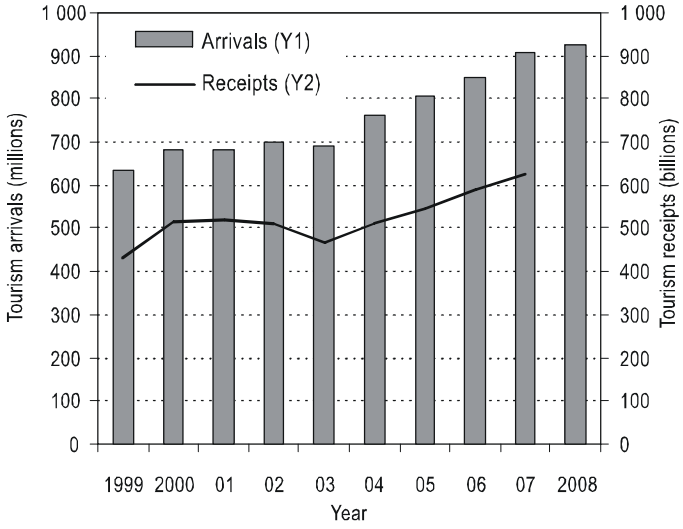


Figure 2. International tourism receipts and arrivals
U.S. dollars, 1999 – 2008

Economic regulation

The liberalization of international air transport regulation continued to evolve at various levels. Bilateral "open skies" air services agreements and regional liberalized agreements and arrangements covered about 31% of country-pairs with non-stop international passenger services and almost 57% of the frequencies offered.

At the bilateral level, 17 new "open skies" agreements were concluded by 21 States, bringing the total to 153 agreements involving 96 States. These agreements provide for full-market access without restrictions on designations, route rights, capacity, frequencies, code-sharing and tariffs.

At the regional level, at least 13 liberalized agreements or arrangements were in operation with the following noteworthy developments:

— in February, Mongolia joined the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT), but on a cargo-only basis;

— in September, the Air Transport Agreement of the Association of Caribbean States (ACS) entered into force, initially for seven Member States and two territories;

— in November, the European Union's (EU) new regulation on the single aviation market entered into force, simplifying and readjusting the third liberalization package adopted in 1992; and

— also in November, the Association of South-East Asian Nations (ASEAN) concluded the ASEAN Multilateral Agreement on Air Services and the ASEAN Multilateral Agreement on the Full Liberalization of Air Freight Services, to shape the roadmap for the single aviation market in the ASEAN.

Interaction between regions towards further liberalization was also on the rise. In March, the Air Transport Agreement between the EU and the United States, signed in 2007, became effective provisionally. In June, the Council of the EU conferred on the European Commission new mandates to open negotiations, on behalf of all EU Member States, with Australia and New Zealand on a comprehensive aviation agreement for the creation of an Open Aviation Area (OAA). The European Commission was also granted mandates to open negotiation with Lebanon in October, as well as Tunisia and Algeria in December, for a Euro-Mediterranean Air Transport Agreement. In November, the European Commission and Canada concluded a comprehensive aviation agreement, which would be formally signed in 2009.

At the multilateral level, the World Trade Organization (WTO) continued the second review of the General Agreement on Trade in Services (GATS) Annex on Air Transport Services. So far, there has been no consensus on the proposals to extend the coverage of the Annex, or on a way to go forward with the review.

At the national level, around 15 States have adopted “open skies” policies, which liberalize foreign airlines’ market access to their territories, in whole or in part, on a unilateral basis. Several States launched review processes of their air transport policies in light of the global trend toward increased liberalization.

Along with the liberalization of air transport regulation, the use of competition laws for the air transport sector occurred with more frequency. During the year, competition authorities, including the Australian Competition and Consumer Commission (ACCC), the Competition Bureau Canada, the European Commission and the United States Department of Justice (DOJ), investigated over 20 major airlines concerning price-fixing of fuel surcharges applied to international cargo rates. Some defendant airlines agreed to plead guilty and pay fines.

The increase in mergers and the steady expansion of alliances, involving especially the three global groupings (Star Alliance, oneworld, and SkyTeam), continued to attract attention from regulatory and competition authorities. In May, the United States Department of Transportation (DOT) approved the second-time application for antitrust immunity for an alliance agreement among six airlines of SkyTeam on transatlantic routes. In October, the United States DOJ cleared the proposed merger of Delta Air Lines and Northwest Airlines, which created the world’s largest airline. In November, ACCC tentatively denied an alliance agreement between Air New Zealand and Air Canada.

AIRLINES

Scheduled operations

Total traffic

The total scheduled traffic carried by the airlines of the 190 Contracting States of ICAO amounted to approximately 2 271 million passengers and some 41 million tonnes of freight. The overall passenger/freight/mail tonne-kilometres performed increased some 0.6% over 2007, with international tonne-kilometres at about 1.9% (see Appendix 1[1], Tables 1 and 2). Figure 3 shows the trend from 1999 to 2008.

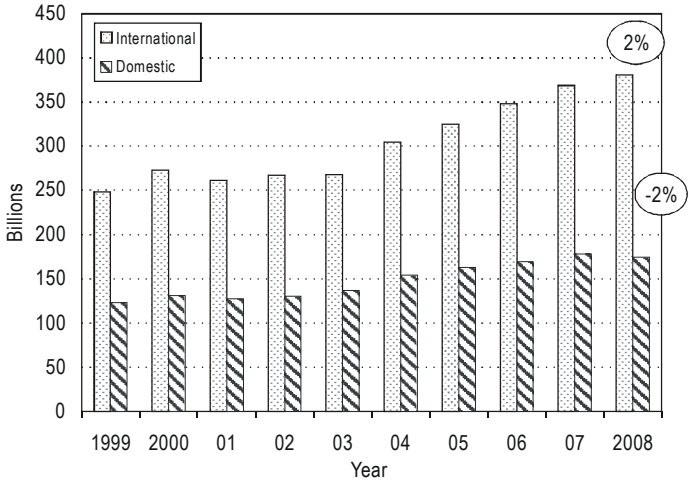


Figure 3. Scheduled traffic
tonne-kilometres performed, 1999 – 2008

The growth in passenger traffic generally fell short of seat capacity offered. As a result, the average passenger load factor on total scheduled services (domestic and international) went down to approximately 75.7%, compared to 76.7% in 2007. The weight load factor also declined, from 63.3% to 62.8%, due to poor seat utilization and freight carriage (see Appendix 1, Table 3).

In terms of total traffic volume (passengers/freight/mail) broken down by region, 31% was carried by North American airlines, 29% by Asia and Pacific airlines, 28% by European airlines, 6% by Middle East airlines, 4% by Latin American and Caribbean airlines and 2% by African airlines (see Appendix 1, Table 4).

1. The Appendices to this report are available exclusively at www.icao.int/annualreports.

Data for individual countries indicate that about 40% of the total volume of scheduled passenger, freight and mail traffic was accounted for by the airlines of the United States, China (excluding the traffic from the Special Administrative Regions of Hong Kong and Macao) and Germany, with totals of approximately 28%, 7% and 5%, respectively. On international services, some 30% of all traffic was carried by the airlines of the United States, Germany and the United Kingdom, with approximately 16%, 8% and 6%, respectively.

International passenger traffic

Growth rates for international passenger traffic declined from 7.9% in 2007 to around 3.4% in 2008. The breakdown in terms of percentage of total traffic carried and of growth rates for carriers is as follows: Europe, 41 and 4.1; Asia and Pacific, 27 and 0.1; North America, 17 and 3.8; Middle East, 8 and 7.5; Latin America and the Caribbean, 4 and 10.3; and Africa, 3 and 3.1.

Domestic passenger traffic

On the domestic front, the impact of a slowing economy and declining GDP was more severe on traffic growth, which declined from 6.4% in 2007 to a –1.9% in 2008. North American carriers, which account for almost 57% of world domestic traffic, declined by –5.1%. This is a significant decline on a large-scale basis and drives down the overall growth for the world. Asia and Pacific carriers accounting for approximately 28% of domestic traffic grew by only 3.7% compared to around 12% achieved in 2007. For European carriers, which account for 9% of world domestic traffic, traffic declined by 2.3%, while Latin American carriers, which account for approximately 5% of world traffic, grew by a strong 8.5%.

Total freight traffic

Total scheduled freight traffic declined by approximately 1.2% in 2008 compared to 4.7% in the previous year. Freight tonnes carried worldwide on scheduled services declined to approximately 40.5 million tonnes compared with 41.8 million tonnes in 2007, while the pace of growth slipped to approximately –3.1%, from 5%.

Summary of traffic decline in 2008

The decline in passenger and freight traffic growth is clearly due to slowing economic growth across all regions of the world. The trend in real Gross Domestic Product (GDP)[2] significantly changed from a growth of 5% in 2007 to an estimated increase of only 3.2% for 2008, impacting traffic across all regions. In the first half of 2008, air travel demand was affected by higher fuel and commodity prices, leading to increased air fares and a decline in consumer discretionary spending on such items as leisure travel. The trend was amplified by the fallout from the global financial crisis in the second half of the year, hitting

2. Measured in terms of Purchasing Power Parity (PPP), which is an economic theory linking currency exchange rates to prices paid for goods and services in any two countries.

severely the performance of the Western developed countries as well as emerging economies in the Asia and Pacific Region. The slowdown was also experienced in the Middle East Region, which nevertheless benefited from the significant increase in oil prices for most of 2008.

Traffic outlook for 2009

With GDP forecast to contract by –1.7% for the year, traffic growth will continue to be under pressure in 2009. ICAO has forecast a decline of around 3.8% for the year.

Non-scheduled commercial operations

It is estimated that, in 2008, the total international non-scheduled passenger-kilometres decreased by about 6% compared with 2007, with the non-scheduled share of overall international air passenger traffic decreasing some 1 percentage point to about 8% (see Figure 4 and Appendix 1, Table 5). Domestic non-scheduled passenger traffic represents about 8% of total non-scheduled passenger traffic and around 1% of total domestic passenger traffic worldwide.

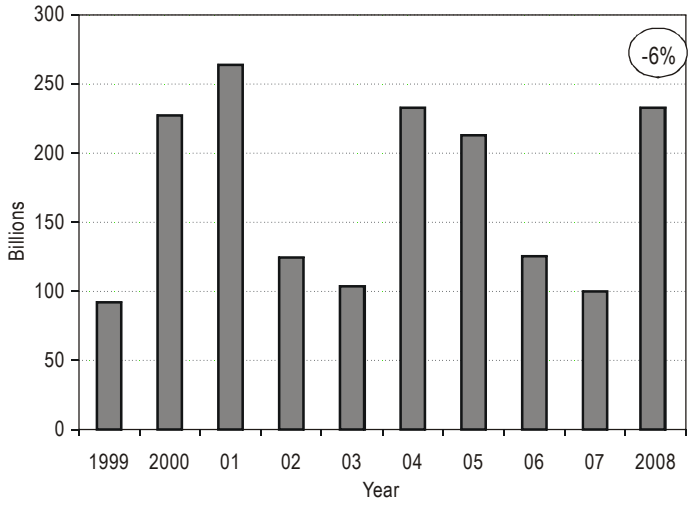


Figure 4. International non-scheduled traffic
passenger-kilometres performed, 1999 – 2008

Aircraft accidents

Aircraft accidents covered below exclude those caused by acts of unlawful interference.

Scheduled operations

Preliminary information indicates that there were 12 aircraft accidents involving passenger fatalities on scheduled air services worldwide, involving aircraft with a maximum certificated take-off mass of more than 2 250 kg. The number of passenger fatalities involved was 455. This compares with 11 fatal accidents and 587 passenger fatalities in 2007 (see Appendix 1, Table 6). The increase in traffic in 2008 compared to 2007 of 1.3% and the reduction in the number of passenger fatalities produced a decline in the number of passenger fatalities per 100 million passenger-kilometres, from 0.014 to 0.011. The number of fatal aircraft accidents per 100 million aircraft-kilometres flown however increased from the 2007 levels of 0.034 to 0.037, and the number of fatal aircraft accidents per 100 000 landings increased to 0.047 from 0.043 in 2007 (see Figure 5). The increase in accident rates was mainly due to a 9% increase in accidents in 2008 applied on marginal growth rates observed in operational parameters.

Safety levels vary significantly for the various types of aircraft operated on scheduled passenger services. For instance, in turbojet aircraft operations, which account for over 98% of the total volume of scheduled traffic in terms of passenger-kilometres performed, there were six accidents with 344 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for less than 2% of the scheduled traffic volume, there were six accidents with 111 passenger fatalities. The fatality rate for turbojet aircraft operations was, therefore, far lower than for propeller-driven aircraft.

Non-scheduled commercial operations

Non-scheduled commercial operations include both the non-scheduled flights of scheduled airlines and all air transport flights of non-scheduled commercial operators. Data available to ICAO on the safety of non-scheduled passenger operations show 18 accidents involving passenger fatalities on aircraft with a maximum certificated take-off mass of more than 2 250 kg, compared with 13 in 2007. These accidents accounted for 116 passenger fatalities, compared with 85 in 2007.

In non-scheduled operations performed with aircraft of a maximum certificated take-off mass of more than 5 700 kg, whether by scheduled airlines or non-scheduled operators, there were five accidents involving 51 passenger fatalities.

ACTS OF UNLAWFUL INTERFERENCE

During the year, 23 acts of unlawful interference were recorded. These consisted of one unlawful seizure, six attempted seizures, three facility attacks, and 13 other acts of unlawful interference (see Appendix 1, Table 7). These acts are included in the annual statistics to assist in the analysis of trends and developments (see Figure 6).

AIRPORTS

The recent downturn in traffic growth is about to create a challenge to many airport operators at a time where a number of capacity development or expansion projects have come, or will come in the near future, to fruition. In 2008, new capacity was added to London-Heathrow, Paris-Charles de Gaulle, Beijing-Capital and Detroit airports, while new airports were inaugurated in Bangalore and Hyderabad.

Little activity was reported in 2008 regarding changes in ownership and management of airports. One major Australian airport operator reduced its stake in two European airports (Brussels and Copenhagen). Chicago-Midway Airport was put up for privatization.

On the regulatory side, the following developments were reported:

— in July, the United States Federal Aviation Administration (FAA) amended its policy regarding the establishment of airport rates and charges, in order to provide greater flexibility to operators of congested airports to vary landing charges based on the time of day and the volume of traffic;

— in August, the United Kingdom Competition Commission issued a provisional finding report on its investigation of BAA Limited's airports and proposed that BAA Limited sell off two of its three London airports and one in Scotland;

— in October, the Government of Singapore announced the separation of the regulatory and operational functions at Changi Airport by next year; and

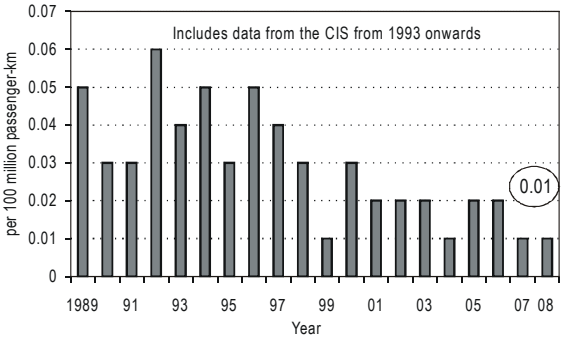
— also in October, the Indian Parliament passed a bill for the establishment of the Airports Economic Regulatory Authority, the independent agency that will regulate charges and monitor performance standards for airports.

AIR NAVIGATION SERVICES

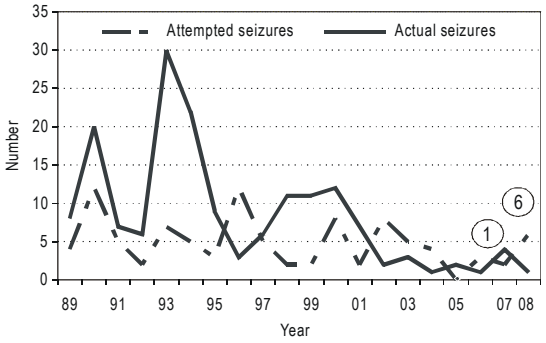
According to a survey conducted by ICAO in 2008, the financial situation of air navigation services providers (ANSPs) continued to improve, with a majority of ANSPs showing a profit.

In Europe, the European Commission adopted, in June, the second package of the Single European Sky (SES II) legislation towards more sustainable and better performing aviation services. The package proposed, inter alia, to establish binding performance targets for ANSPs and expand functional airspace blocks (FABs) to the lower airspace. Currently, eight FABs are under development. In October, the Council of the EU adopted a resolution to launch the development phase of the Single European Sky ATM Research (SESAR) programme, which is aimed at maintaining a high level of safety, improving capacity and developing an efficient, sustainable and environmentally friendly European air transport system.

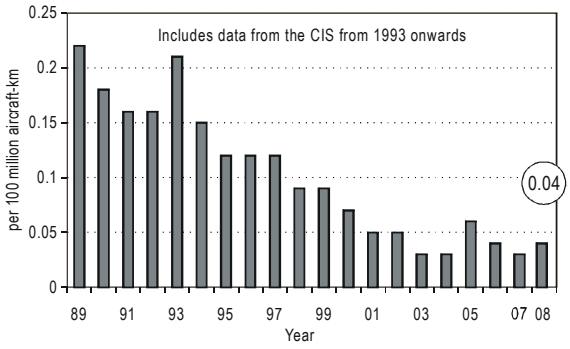
In the United States, the FAA continued with the transformation of air traffic control, from a ground-based system of radars to a satellite-based system, through the Next Generation (NextGen) Air Transportation System Integrated National Plan. The FAA and the aviation community are working closely together to develop and prioritize the implementation of new operational capabilities, so that benefits are maximized for all parties.



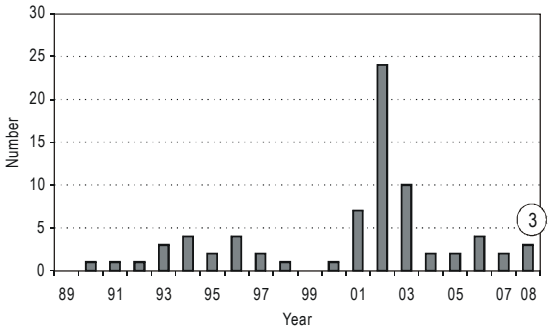
Number of passengers killed per 100 million passenger-kilometres on scheduled services



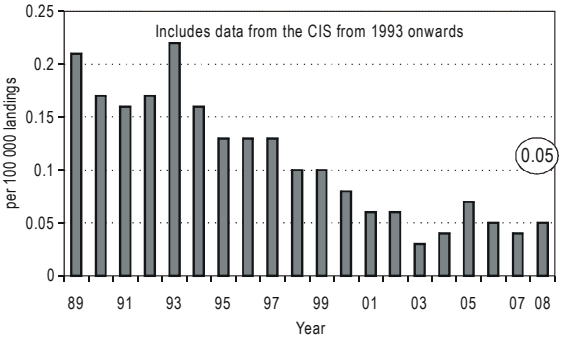
Acts of unlawful seizure



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

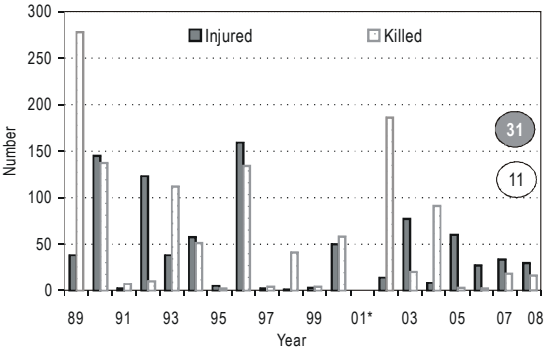


Acts of facility attacks



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

Figure 5. Aircraft accident statistics
1989 – 2008

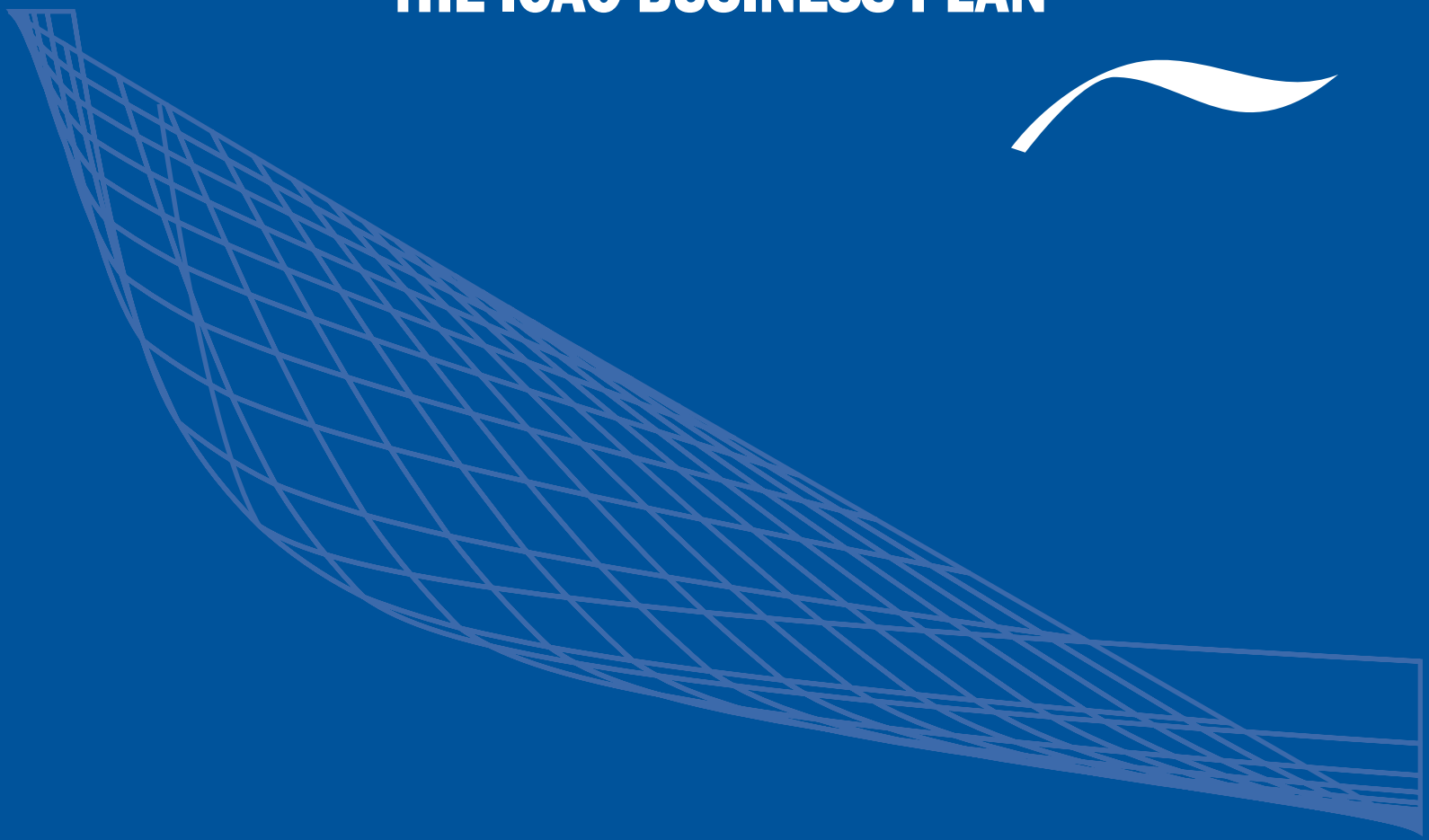


Number of persons killed or injured

*For 2001: Injured — 3 271, Killed — 3 525.

Figure 6. Aviation security statistics
1989 – 2008

THE ICAO BUSINESS PLAN



THE ICAO BUSINESS PLAN

Business Plan and Performance Management Framework

The first year of ICAO's new Business Plan for the 2008-2010 triennium firmly established the practice of results-based budgeting. With the initial Business Plan of 2005, the triennial budget had already been approved by the Assembly in 2004. For the current three-year cycle, the budget was prepared based on the Business Plan programmes and priorities. This means that resources have been allocated against a set of identified Expected Results. The aim of this integrated planning-budgeting process is to provide a systematic assessment of progress and results in support of the Organization's Strategic Objectives.

To that end, a set of complementary performance management tools are required. On the basis of best practices in the United Nations System and the civil aviation community, ICAO is in the process of designing a framework for performance reporting. This function would be automated through an online planning and monitoring system called the ICAO Knowledge Shared Network (IKSN). This platform will include all ICAO programmes and projects and make it possible to share information and track progress against ICAO's Strategic Objectives and Supporting Implementation Strategies (SIS). It would also make it possible to obtain real-time status reports through stoplight charts. IKSN is currently a pilot project, pioneered in the Air Navigation Bureau, presently focused on the Safety, Security and Efficiency Strategic Objectives only. Pending the implementation of the IKSN, an excel-based dashboard is being developed to track key performance indicators (KPIs) and enable managers to ascertain whether the strategies that underlie their budgetary requirements and capital investments are effective or require corrective action.

The challenge for ICAO, as part of the transition to a results-based organization, is to organize a significant shift in management culture, in order to drive the strategic process of planning and decision-making. A key issue is not only to assess whether the Organization has met its commitments, but also whether it has taken the correct measures to achieve the six Strategic Objectives. ICAO performance assessment reports will therefore address both the efficiency and the effectiveness of programmes as well as their actual impact on civil aviation.

For the current Business Plan, the following Expected Results have been established to enable or facilitate the achievement of each Strategic Objective.

Strategic Objective A: Safety

Enhanced resolution of safety issues by ICAO through the implementation of a safety management process in ICAO.

Enhanced safety of international civil aviation through the implementation of a safety management system (SMS) in each Contracting State and the industry.

Enhanced oversight capabilities of States through the conduct of comprehensive safety oversight audits.

Enhanced resolution of safety deficiencies through coordinated assistance to States and sharing of safety information.

Strategic Objective B: Security

Enhanced implementation of ICAO security standards through effective security management and assistance.

Enhanced compliance with facilitation standards concerning border-crossing, including those relating to machine readable travel documents (MRTDs).

Enhanced oversight capabilities of States and improved airport security through the conduct of aviation security audits.

Strategic Objective C: Environmental Protection

The environmental effects of aviation are properly identified and reasonably quantified, and appropriate measures to address these effects are developed.

ICAO is recognized as the leader organization in addressing environmental issues related to international aviation.

Strategic Objective D: Efficiency

Operational services in support of a performance-based air navigation system (PBANS).

Technology and infrastructure in support of a performance-based air navigation system (PBANS).

Implementation framework in support of the transition to the operational concept.

Liberalization of air transport regulation and efficiency of infrastructure.

Strategic Objective E: Continuity

Prevention and minimization of disruptions to aviation operations.

Strategic Objective F: Rule of Law

Preparation and promotion of ratification of international air law instruments; depository and dispute-settlement functions related thereto; registration of aeronautical agreements; and preparation of model legislation.

Supporting Implementation Strategies

Performance-based criteria aimed at enhancing efficiency and effectiveness were applied to the Supporting Implementation Strategies (SIS) in the following areas of ICAO: Assembly and Council Secretariat; Language and Publications; External Relations; Executive Management; Budget and Financial Management; Human Resources Development; Information Technology; Office of the Director, Bureau of Administration and Services — Infrastructure; Oversight and Evaluation; Legal Services; and Security Management. Also included in the new approach are: the Ancillary Revenue Generating Fund (ARGF); the Technical Co-operation Bureau; and Joint Financing Activities.

SAFETY

STRATEGIC OBJECTIVE A

Enhance global civil aviation safety through the following measures:

Identify and monitor existing types of safety risks to civil aviation and develop and implement an effective and relevant global response to emerging risks.

Ensure the timely implementation of ICAO provisions by continuously monitoring the progress toward compliance by States.

Conduct aviation safety oversight audits to identify deficiencies and encourage their resolution by States.

Develop global remedial plans that target the root causes of deficiencies.

Assist States to resolve deficiencies through regional remedial plans and the establishment of safety oversight organizations at the regional or subregional level.

Encourage the exchange of information between States to promote mutual confidence in the level of aviation safety between States and accelerate the improvement of safety oversight.

Promote the timely resolution of safety-critical items identified by Planning and Implementation Regional Groups (PIRGs).

Support the implementation of safety management systems across all safety-related disciplines in all States.

Assist States to improve safety through technical cooperation programmes and by making critical needs known to donors and financial organizations.

SAFETY

ICAO's increasingly proactive and results-based approach to safety became more visible in 2008, with important programmes and activities under way worldwide. A key focus was aviation safety in Africa and ICAO dedicated significant resources to addressing issues in the region.

Universal Safety Oversight Audit Programme (USOAP)

The purpose of the USOAP is to assess the capability of a State to perform effective oversight of its own civil aviation system. The audits serve to highlight shortcomings in oversight capabilities, while the corrective action plans based on audit findings lead to greater compliance with ICAO Standards and Recommended Practices (SARPs) — and ultimately to enhanced safety.

During 2008, 35 Contracting States were audited under the comprehensive systems approach (CSA) launched in 2005. The expanded USOAP mandate covers the safety-related provisions contained in all safety-related Annexes to the Convention on International Civil Aviation and, together with national aviation legislation and organization, provides a complete picture of a State's civil aviation system. By the end of 2008, ICAO had completed 114 CSA audits as part of its current six-year audit cycle ending in 2010.

Figure 7 shows the worldwide level of effective implementation of the eight critical elements of a safety oversight system.

With the adoption in 2006 of a global safety strategy based on full transparency and sharing of safety information, disclosure of safety data has become standard practice. All ICAO Contracting States audited under USOAP have now given their consent for ICAO to release information on their audit results. Such transparency can encourage States to correct outstanding deficiencies more quickly and may help potential donors identify those in need of financial or human resources to correct shortcomings. Transparency will further enhance aviation safety around the world and promote greater understanding by the public of the critical aspects of civil aviation.

The 36th Session of the Assembly, in September 2007, directed the Council to examine, among the various options that could be considered, the feasibility of a new approach based on the concept of continuous monitoring, for implementation at the end of the current audit cycle in 2010. To this end, the Safety and Security Audits (SSA) Branch established an ad hoc study group, composed of representatives from the Safety Oversight Audit (SOA) Section, the Aviation Security Audit (ASA) Section, the Information and Communications Technology (ICT) Section, and the Air Navigation Bureau (ANB), assisted by an

Advisory Group with representatives from the Air Navigation Commission (ANC), the Air Transport Bureau (ATB), the ICAO Regional Offices and from international and regional organizations. The study under development will present various alternatives to be considered for the evolution of USOAP and propose a series of recommendations regarding the allocation of ICAO's human, technical and financial resources.

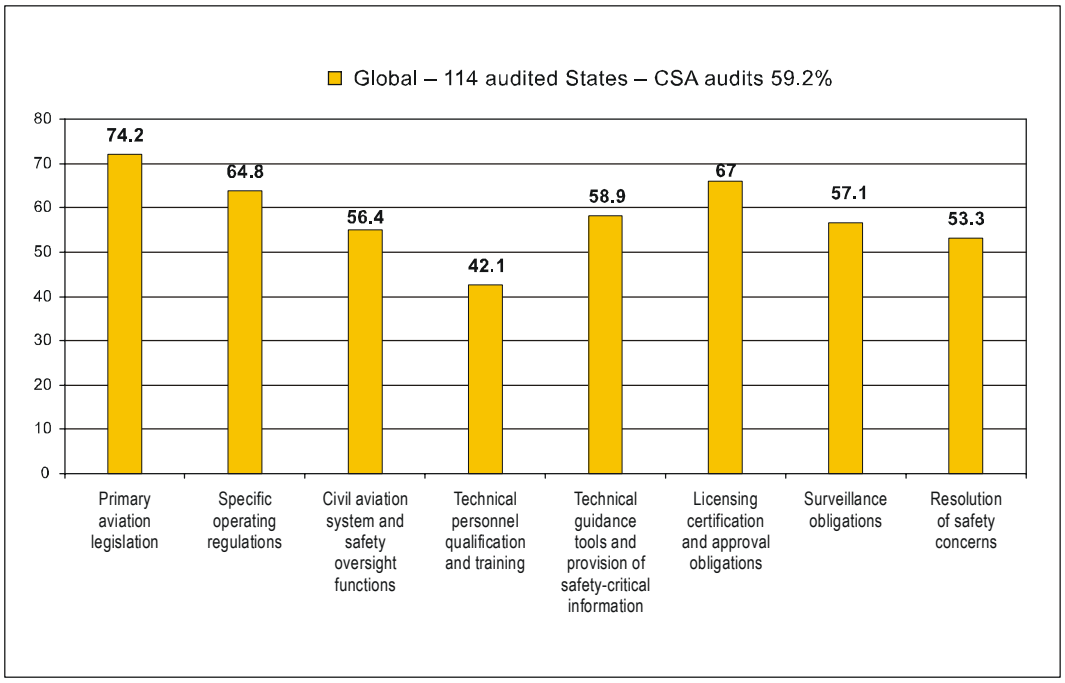


Figure 7. Degree of implementation of the critical elements of a safety oversight system (%)

During 2008, ICAO continued to promote awareness of the comprehensive systems approach to audits through regional seminars and workshops. Eight such seminars were conducted in Casablanca, China (Hong Kong SAR), Kiev, Lima, Lisbon, Moscow, Nairobi and Tehran. In addition, three auditor training courses were held in Mexico City, Montréal and Nairobi.

Contracting States and regional organizations continue to provide valuable support to ICAO through the secondment of experts, on a long- or short-term basis, to participate in the activities of the USOAP.

Safety Management Systems (SMS)

As part of the ongoing effort initiated in 2005 for the harmonization of provisions relating to safety management in Annex 1 — *Personnel Licensing*, Annex 6 — *Operation of Aircraft*, Annex 8 — *Airworthiness of Aircraft*, Annex 11 — *Air Traffic*

Services, Annex 13 — *Aircraft Accident and Incident Investigation* and Annex 14 — *Aerodromes*, a proposal was introduced which centred around the introduction of two frameworks: the first one for the implementation and maintenance of a State's safety programme; and the second for the implementation and maintenance of a service provider's safety management system (SMS).

A full revision of the *Safety Management Manual (SMM)* (Doc 9859) was completed.

The focus on training for States and stakeholders continued with 43 ICAO SMS Training Courses held around the world. Courses were also conducted for various aviation organizations, including two for the European Aviation Safety Agency (EASA), two for the Euromed Aviation Project, two for the International Federation of Air Line Pilots' Associations, South America Region (IFALPA SAM) and four for the United Nations World Food Programme (WFP).

Three one-day Senior Management SMS Workshops were also delivered in Ethiopia, Indonesia, and the United Arab Emirates, and four three-day Regional Implementation SMS Workshops were held in France (European and North Atlantic (EUR/NAT) Office), Mexico (North American, Central American and Caribbean (NAM/CAR) Office), Thailand (Asia and Pacific (ASIA/PAC) Office) and the United Arab Emirates.

The first State Safety Programme (SSP) Course in support of the African Comprehensive Implementation Programme (ACIP) was held in Ethiopia in September. This three-day workshop for regulators provided States with the necessary guidance to develop and implement the SSP according to ICAO requirements. The workshop was preceded by a one-day seminar for high-level decision-makers from African civil aviation authorities and the aviation industry; it focused on high-level management duties and responsibilities relating to the SSP and the ICAO SMS. The workshop emphasized safety as a business activity, effectively supporting the bottom line of the industry and its ability to compete globally.

Global Aviation Safety Programme (GASP)

The GASP, initially formulated in 1997 to provide an overarching vision for aviation safety, was expanded in 2007 to incorporate the Global Aviation Safety Roadmap (GASR) developed by industry with the cooperation of ICAO. The primary objective is to reduce the risk of accidents by providing a common frame of reference for all stakeholders, thus facilitating a more proactive approach to aviation safety and helping to better coordinate and guide safety policies and initiatives worldwide.

The implementation of the GASP in the Africa-Indian Ocean (AFI) Region, in collaboration with the Industry Safety Strategy Group (ISSG), is an essential building block for strengthening safety worldwide. The GASP was promoted at the Special AFI Regional Air Navigation (RAN) meeting in Durban in November,

where performance framework forms were adopted as a management tool for use by States, and the AFI Region as a whole, to track the progress made in the implementation of the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan) as well as the GASP.

Regional Aviation Safety Groups (RASG)

The first meeting of the Regional Aviation Safety Group — Pan America (RASG-PA) was held in November in Puntarenas. The Group serves as a focal point to ensure harmonization and coordination of safety efforts aimed at reducing aviation hazards and risks in North America, Central America, the Caribbean and South America. It also serves as a forum to centralize and facilitate coordination of safety implementation measures in accordance with the ICAO Global Aviation Safety Plan (GASP) and the industry Global Aviation Safety Roadmap (GASR) among States, international organizations, airlines, air navigation services providers, airports, manufacturers and regional aviation safety organizations throughout the Americas. During the first meeting of the RASG-PA, the Group completed a gap analysis for the implementation of safety management systems following the GASP/industry GASR process.

In the Middle East (MID) Region, the first meeting of the Top Level Safety Team (TLST) was held in November in Abu Dhabi. From this meeting the following priorities were identified: implementation of international Standards; procedures for regulatory oversight; compliance with regulatory requirements; reporting and analysing errors and incidents; incident and accident investigation; development of State Safety Programmes (SSP) and implementation of safety management systems (SMS); use of technology to enhance safety; and availability of qualified and trained human resources. Through the TLST, States and concerned international organizations will continue to exchange ideas and agree on priorities, based on the GASP and GASR frameworks, and on the goals and objectives set by ICAO and by the ISSG.

AFI Comprehensive Implementation Programme (ACIP)

The ACIP was established on 1 January 2008 to give effect to the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan). The ACIP work programme was developed based on three Focus Areas: 1) enabling States to establish and maintain a sustainable safety oversight system (infrastructure and capacity building); 2) assisting States to resolve identified deficiencies within a reasonable time; and 3) enhancing the aviation safety culture of African aviation service providers. Much of the work accomplished has been a collaborative effort involving both ICAO (Headquarters and Regional Offices) and other parties (African Civil Aviation Commission (ACAC), Agency for Air Navigation Safety in Africa and Madagascar (ASECNA), and the ISSG).

The following actions are in progress:

Focus Area 1:

Four Global Aviation Safety Plan (GASP) Roadmap Workshops were held in Burkina Faso, Mozambique, Nigeria, and the United Republic of Tanzania.

Gap analyses based on GASP were completed in seven member States of the Banjul Accord Group (BAG) and priorities were identified focusing mainly on the establishment of a Regional Safety Oversight Organization (RSOO) and a Regional Accident Investigation Agency (RAIA). Gap analyses were also completed in three States in the Eastern African region. For the remaining States, analyses will be completed by the first quarter of 2009.

Focus Area 2:

Regional Office Safety Teams were established to ensure the continued implementation of the AFI Plan, to support States in resolving identified deficiencies, and to continuously monitor and follow up on implementation projects.

Focus Area 3:

Guidance and training material designed specifically for the African environment was developed on State Safety Programmes (SSP) and safety management systems (SMS). In addition, an SMS awareness programme was developed for high-level management personnel.

A one-day seminar aimed at high-level decision-makers (civil aviation authorities and the African aviation industry, including airlines, airports, and air traffic management) was conducted in Addis Ababa in September, and was attended by 112 participants from 19 African States and four regional organizations.

A three-day seminar/workshop for regulators on the SSP was held in Addis Ababa in September, and was attended by 87 participants.

An SMS Course for safety officers from industry and civil aviation authorities was held in Addis Ababa in September, and was attended by 81 participants.

In addition to the above-mentioned activities and programmes, representatives from the ACIP participated in many high-level meetings and conferences in Africa, with the aim of raising awareness about the programme and garnering support from the highest possible authorities on the continent for its effective implementation.

The Special Africa-Indian Ocean (AFI) Regional Air Navigation (RAN) Meeting

The Special AFI RAN Meeting, related to both Strategic Objective A (Safety) and to Strategic Objective D (Efficiency), resulted in a strengthened continent-wide commitment to improving safety and efficiency, resolving deficiencies and addressing critical issues. The meeting also developed, for the first time in ICAO's history, a comprehensive report containing a set of proposed work programmes based on performance objectives with measurable outcomes and metrics. This will facilitate regional and global management, technical and financial assistance and provide a comprehensive and documented set of requirements for the AFI Region. The meeting objectives were guided by the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP), as well as aligned with and supported by the ACIP, to ensure harmonization and integration of the work of ICAO Headquarters and the AFI Region.

In the field of safety, areas addressed at the meeting included: regional cooperation on the establishment of Regional Safety Oversight Organizations (RSOOs), Regional Accident Investigation Offices (RAIOs), and Regional Aviation Safety Teams (RASTs); training and elimination of identified deficiencies; the role of the Cooperative Development of Operational Safety and Continuing Airworthiness Projects (COSCAPs); and the coordination and alignment of assistance.

The outcome of the AFI RAN Meeting in the area of efficiency can be found under Strategic Objective D.

Safety aspects of reduced vertical separation minimum (RVSM) in Africa

RVSM was implemented in Africa in September. This not only increased the number of available altitudes which improved system capacity, but it also served to enhance safety by decreasing aircraft density in a given segment of airspace. With this single initiative, the level of operational safety was improved throughout the AFI continental airspace. Other benefits include related annual savings for the AFI Region estimated at $85 million and an annual reduction of 250 thousand tonnes of CO_2.

Accident Investigation and Prevention (AIG) Divisional Meeting

The eighth AIG Divisional Meeting, attended by 225 participants from 75 Contracting States and 12 international organizations, was held at ICAO Headquarters in October. The meeting, with the theme of "Developing investigations to enhance safety worldwide", focused on the improvement and amplification of the scope of investigations in a cost-effective environment. Proposals and recommendations put forward by meeting participants were aimed at improving AIG for enhanced aviation safety worldwide. The meeting, inter alia, recognized that innovative approaches to accident and incident investigation

were needed, given the current realities of evolving technologies and resource constraints. Also discussed was the future of investigations, with the goal of assisting States through the development of regional investigation bodies. Other subjects tackled included public availability of final accident reports, in the interest of accident prevention, and the assessment of shortcomings in relation to Annex 13 — *Aircraft Accident and Incident Investigation*, identified by ICAO's Universal Safety Oversight Audit Programme (USOAP).

Runway Incursion Reporting

A critical factor in aviation safety is risk reduction. Fundamental to global risk reduction is the identification of trends and the assessment of existing and potential safety hazards through a comprehensive safety database such as ICAO's accident/incident reporting (ADREP) system. To determine the common causal factors of runway incursions, however, the coverage and depth of available ADREP safety data and information must be improved. To this end, amendment proposals were introduced to Annex 13 and the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) that strengthen the requirements for reporting runway incursions classified as severity A. This will facilitate a global approach to data collection and, ultimately, help identify common causal factors, an important consideration for State Safety Programmes (SSP) and safety management systems (SMS).

ICAO Database of Assistance Projects (IDAP)

The ICAO Database of Assistance Projects (IDAP) has been created as a reference tool for all aviation stakeholders and provides information on aviation safety and security assistance projects in order to help avoid duplication in development efforts. Phase I of the project was completed in May with the delivery of a working prototype that a limited number of stakeholders have been testing. Feedback and comments are currently being solicited from selected funding agencies and donor-States before embarking on Phase II of the project, which will further clarify stakeholder expectations on the use of the database.

Aerodrome Design and Operations

A comprehensive amendment proposal to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations* and Volume II — *Heliports*, with consequential amendments to Annex 4 — *Aeronautical Charts* and Annex 15 — *Aeronautical Information Services*, was reviewed by the Air Navigation Commission. The proposal will enhance aerodrome safety and efficiency through the introduction of provisions on: publishing the status of aerodrome certification in the Aeronautical Information Publication (AIP); new visual aids for the prevention of runway incursions and for denoting wind turbines; advanced visual docking guidance systems to improve apron safety; enhanced rescue and fire fighting at aerodromes; wildlife strike hazard reduction; inspection and

maintenance of movement areas; and a comprehensive amendment to Annex 14, Volume II, to take into account the characteristics of modern helicopters.

Harmonization of level systems

There currently exists airspace where the primary unit of measurement is metres as well as airspace where the unit used is feet. To reduce the number and complexity of transition areas between adjacent airspace using different units of measurement, new tables of cruising levels were developed, standardizing the metric flight level systems in use. These were incorporated in Annex 2 — *Rules of the Air*. In addition to increased operational safety, the harmonization of level systems will greatly benefit global implementation of RVSM.

Unmanned Aircraft Systems (UAS)

Work was initiated by the Unmanned Aircraft Systems Study Group (UASSG) on a new ICAO circular which will provide an overview of current Standards and Recommended Practices (SARPs) and supporting documents that will be affected by the introduction of international flights by UAS in non-segregated airspace. The circular is the first step in what will be a lengthy process to harmonize terms, to provide guidance to States on developing their regulatory frameworks and to develop new SARPs.

Wake Vortex

Revised guidance on wake vortex aspects relating to the Airbus A380-800 were produced by an ad hoc group under the auspices of the United States Federal Aviation Administration (FAA), the European Organisation for the Safety of Air Navigation (EUROCONTROL), the Joint Aviation Authorities/European Aviation Safety Agency (JAA/EASA) and the manufacturer. It was distributed to all ICAO regions.

Studies are under way to produce guidance on wake vortex aspects on Boeing B747-800 by another FAA-EUROCONTROL-JAA/EASA-manufacturer ad hoc group for this new aircraft expected to enter into service in 2010 or 2011.

Update of Air Operator Certificate (AOC) provisions in Annex 6

Amendments to Annex 6 — *Operation of Aircraft*, Part I — *International Commercial Air Transport — Aeroplanes* and Part III — *International Operations — Helicopters*, aimed at improving safety by strengthening the oversight and requirements of foreign operators and at establishing a harmonized and standardized AOC, were adopted by the Council. The content of the AOC and associated operations specifications was updated and their layout specified.

To support these new requirements, the *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance* (Doc 8335) was updated and posted on the ICAO-NET pending editorial review and publication.

Dangerous Goods

Following a serious dangerous goods incident on 3 December 2007 in which a cylinder containing an ethyl chloride mixture violently burst, an urgent safety-critical amendment to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, 2007-2008 Edition (Doc 9284) with respect to mixtures containing ethyl chloride or similar dangerous substances was approved by the Council on 11 June 2008. The amendment prohibits the use of aluminium cylinders for ethyl chloride and for certain mixtures of dangerous goods, and provides guidance on assigning proper shipping names for mixtures or solutions.

Aviation Medicine

An amendment proposal updating the medical provisions in Annex 1 — Personnel Licensing and Annex 6 — *Operation of Aircraft* was reviewed by the Air Navigation Commission. Topics covered by the amendment include a shift to performance-based aeromedical SARPs and a revision of the guidelines concerning on-board medical supplies.

International Financial Facility for Aviation Safety (IFFAS)

The IFFAS mechanism continued receiving contributions from States totalling U.S.$4 474 553 by year-end 2008 and has financed 10 projects benefiting 56 States.

Regional initiatives — Safety

An additional 30 airports were certified, including 22 international airports in Indonesia, bringing the total number of certified aerodromes to 101, with more currently undergoing the certification process. In the Asia and Pacific (ASIA/PAC) Region, 24 States established and tested aerodrome emergency plans and 12 States established National Bird Control Committees.

The China RVSM Regional Monitoring Agency (RMA) was endorsed as a regional RMA. It is the fifth ASIA/PAC RMA providing safety assessment and monitoring services to support widespread RVSM operations throughout the region.

A Central Reporting Agency (CRA) was established in the ASIA/PAC Region based on agreements between India, the Boeing Company and IATA. The CRA will provide an analysis of the data link (automatic dependent surveillance

(ADS)/controller-pilot data link communication (CPDLC)) technical performance to ensure that performance is adequate to support the widespread implementation of reduced horizontal separations, based on performance-based navigation (PBN) specification area navigation (RNAV 10), in the Bay of Bengal and Arabian Sea areas.

A Safety Monitoring Agency (SMA) for the South China Sea area was established by the Civil Aviation Authority of Singapore and will undertake safety assessment, monitoring and analysis activities to enable implementation of reduced horizontal separations.

A comprehensive action list for the normalization of the communications, navigation, and surveillance (CNS) infrastructure in Iraq was agreed with the aim of improving safety of operations within the Baghdad FIR.

An ICAO-endorsed Government Safety Inspector (GSI) Course was conducted in Sal in May, in collaboration with the United States Federal Aviation Administration (FAA) for the seven COSCAP-Banjul Accord Group (BAG) member States to help in building regional safety oversight capacity.

The first SIGMET test in the AFI Region was conducted in collaboration with the Volcanic Ash Advisory Centre (VAAC) Toulouse Manager and the AFI Regional OPMET Data Banks (RODBs).

Workshops on language proficiency requirements were conducted in all regions to support States in their efforts to comply with ICAO provisions.

A performance-based navigation (PBN) harmonization and implementation strategy for the European Region was developed to help mitigate safety risks resulting from differences in operational procedure.

Guidance material was developed on the management of critical and sensitive instrument landing system (ILS) areas, particularly for larger frame aircraft.

Twenty-five out of 27 Latin American Aviation Regulations (LARs) covering Annexes 1, 2, 6 and 8 were approved by the Regional System for Cooperation on Operational Safety Oversight (SRVSOP) in Latin America. SRVSOP member States decided to widen the scope of the LARs to other ICAO Annexes.

Technical cooperation projects and activities

There were 71 national and 17 regional technical cooperation projects contributing to further improving aviation safety around the world.

Support also came from the recruitment of 116 international experts who provided assistance to national civil aviation administrations in a broad range of areas, such as accident investigation and prevention, airworthiness certification, flight operations, personnel licensing, safety management systems, aerodrome certification, rescue and fire fighting, airfield lighting, aircraft operations, airline operations and maintenance, aviation medicine, civil aviation administration and master planning, and human resource development.

Developing local expertise is equally important. The ICAO Fellowship Programme provided training for 148 nationals, primarily in the fields of accident investigation and prevention, aircraft maintenance and airworthiness, flight operations, inspector training (personnel licensing, flight operations and airworthiness), safety management systems and flight simulator training. In addition, more than 1 500 individuals received in-country training by ICAO experts in one or more of the above-mentioned areas through seminars and workshops carried out under the auspices of regional technical cooperation projects.

Training that ensures the proper use of new equipment is another dimension of strengthening human resources. ICAO was involved in contracts for major equipment, including airport lighting systems and auxiliary equipment such as electrical power plants, as well as rescue and fire fighting vehicles, ambulances and other equipment. The procurement process for these items included training for 39 nationals in various countries.

The Technical Co-operation Bureau is currently implementing ten COSCAP projects with the participation of 84 States in the Asia and Pacific, Europe, Middle East, Africa and the Americas Regions. The objective of COSCAP is to enhance the safety oversight capabilities of participating States, facilitate a coordinated approach to shared technical expertise and provide training to national inspectors, all through the establishment of a subregional safety oversight structure designed to reduce costs to individual States.

SECURITY

STRATEGIC OBJECTIVE B

Enhance the security of global civil aviation through the following measures:

Identify and monitor existing types of security threats to civil aviation and develop and implement an effective global and relevant response to emerging threats.

Ensure the timely implementation of ICAO provisions by continuously monitoring the progress toward compliance by States.

Conduct aviation security audits to identify deficiencies and encourage their resolution by States.

Develop, adopt and promote new or amended measures to improve security for air travellers worldwide while promoting efficient border-crossing procedures.

Develop and maintain aviation security training packages and e-learning.

Encourage the exchange of information between States to promote mutual confidence in the level of aviation security between States.

Assist States in the training of all categories of personnel involved in implementing aviation security measures and strategies and, where appropriate, the certification of such personnel.

Assist States in addressing security-related deficiencies through the aviation security mechanism and technical cooperation programmes.

SECURITY

Countering new and emerging threats to aviation security

During its nineteenth meeting, held at ICAO Headquarters in Montréal in May, the Aviation Security (AVSEC) Panel reviewed its terms of reference and governing procedures so as to remove perceived constraints on its ability to consider the full scope of aviation security issues. The revisions later approved by the Council enable the panel to respond rapidly and cohesively to threats affecting civil aviation and allow it to provide a strategic direction for preventing future acts of unlawful interference. In order to progress on different aspects of aviation security, the panel decided to undertake its work through various working groups, based on topics and areas of security concern.

Accordingly, the panel revitalized its New and Emerging Threats Working Group with a view to undertaking a full analysis of potential vulnerabilities in aviation security and assessing how they correlate to SARPs currently contained in Annex 17 — *Security*. The objective was to identify issues to be addressed in a proactive review of the Annex in order to ensure that appropriate measures for countering future threats are proposed in Amendment 12.

Following its examination of SARPs contained in Annex 17, the panel established a working group on Amendment 12 to Annex 17. Its task was to identify and propose text for new SARPs to be included in Amendment 12 to ensure that measures are commensurate with the actual and foreseeable global security environment for civil aviation. Proposals need to take into account the principles of risk management, impact assessment as applicable, clarity, common interpretation, harmonization, precision, and the achievement of observable and measurable security results. The following issues have already been identified by the panel for further consideration, with a view to their inclusion in Amendment 12: an amended definition of acts of unlawful interference; stowaways; security management systems; a new recommendation on the implementation of a secondary barrier that can be deployed when a flight crew compartment door needs to be opened; baggage reconciliation; and a proposal to include air traffic services providers in the National Civil Aviation Security Programme (NCASP).

To carry out a review and develop new guidance material for States in the implementation of Annex 17, the panel established a Working Group on Guidance Material. With the assistance of the panel's Working Group on Training, the group completed a review of the draft seventh edition of the *Security Manual*.

One of the points stressed by the panel was the need for harmonization and consistency among prohibited items lists (PILs), as discrepancies could pose a security risk. The harmonization between security rules should extend to

providing passengers and crew members with clear and coordinated information as to which items may not be taken on board an aircraft for either security or safety reasons. It was considered that harmonized rules at the international level are highly desirable to strengthen confidence in aviation security. In this regard, the panel approved the list of prohibited items which was conveyed to States in August. The panel recommended that the PILs should serve as a guideline and that States should exercise a modest degree of flexibility in its implementation.

The panel also approved guidance material on security controls for liquids, aerosols and gels (LAGs), developed by the Secretariat Study Group on the Carriage and Screening of Liquids, Gels and Aerosols. They are designed to assist States in the harmonized implementation of the guidelines recommended by the Council. The guidance material was conveyed to States in October 2008. The panel also concluded that volumetric controls for LAGs and procedural initiatives such as security tamper-evident bags (STEBs) should not be considered a permanent solution to the challenge of carry-on LAGs.

The seventeenth meeting of the Ad Hoc Group of Specialists on the Detection of Explosives and the seventh session of the International Explosives Technical Commission, held in Montréal in October, concluded that no tested and validated commercially available technology is capable of screening the range of LAGs inside cabin baggage. The meetings were informed of a roadmap being developed by the European Community (EC) for security controls for LAGs as a longer-term solution. It recommended an approach comprised of the following steps:

— engage the industry;
— develop a test methodology;
— test existing equipment in laboratories;
— conduct pilot tests in an operational context for selected passengers; and
— proceed with regulatory change.

States were encouraged to support work in the development and evaluation of technologies capable of swift and accurate screening of LAGs, in a manner that could be integrated into current security processes.

Countering threats to civil aviation, the concerted effort of, and close cooperation between, national agencies and aviation security regulators of Contracting States is essential. In this regard, the Organization continued to urge States to participate in the ICAO Aviation Security Point of Contact (PoC) Network, established for the communication of imminent threats to civil air transport operations.

Amendments to Annex 9 — Facilitation

The Facilitation Panel's tasks include the formulation of recommendations for new and amended SARPs for Annex 9, taking into account recent developments in applicable technology, contemporary challenges, and future needs for improving the efficiency and effectiveness of border inspection and other control processes at airports.

At its fifth meeting (FALP/5), held from 31 March to 4 April, the panel reviewed and revised the SARPs of Chapter 6 (International airports — facilities and services for traffic). Issues addressed included the role of privatized airports in meeting the requirements of border inspection agencies, measures to prevent the spread of disease by air travel and matters relating to modern inspection systems. The panel also suggested that the chapter could be streamlined by deleting outdated SARPs.

The panel made recommendations aimed at enhancing the SARPs relating to advance passenger information (API) programmes, contained in Chapter 3 (Entry and departure of persons and their baggage), to align existing and emerging passenger data exchange regimes with global best practices. Today, many Contracting States have either implemented or are in the process of implementing API programmes. In several instances, however, API programmes

being introduced failed to consider existing international best practices as agreed by the World Customs Organization (WCO), ICAO and the International Air Transport Association (IATA). Therefore, the changes suggested by the panel, if eventually adopted, would alleviate the difficulties that airlines are currently facing with non-uniform API regimes.

Aviation Security Audits

The ICAO Universal Security Audit Programme (USAP), launched in June 2002, provides for the conduct of universal, mandatory and regular audits of the aviation security systems of all ICAO Contracting States. The audits identify deficiencies in each State's aviation security system and propose recommendations for their resolution.

A total of 182 audits were conducted under the first cycle of audits, including those of 181 Contracting States and one Special Administrative Region. Follow-up visits were initiated in 2005 to evaluate improvements made by States in implementing the ICAO audit recommendations, as reflected in States' corrective action plans. During 2008, 41 such visits were conducted, for a total of 142 since 2005. Follow-up visits continue to confirm that, overall, States have made progress in the implementation of their corrective action plans.

In May, ICAO issued a comprehensive analysis of USAP audit results from the first cycle, covering the five-year period ending December 2007. This in-depth analysis enabled the identification and quantification of national- and airport-level security concerns for States at the global and regional levels.

A second cycle of audits under the USAP was launched in January 2008. This cycle is focused on States' effective implementation of the critical elements of an aviation security oversight system. The scope of the audits was also expanded to cover relevant security-related provisions of Annex 9 — *Facilitation*, including the verification of processes related to controls on the creation and issuance of travel documents.

In this regard, a programme of auditor recertification was initiated in December 2007 to provide recurrent training for all USAP auditors on the audit methodology used for the second cycle. It featured live interactive web-based briefings and an e-learning programme. The training was concluded in 2008 and almost all of the 120 active USAP auditors were recertified during the year. In addition, an ab initio USAP Auditor Training Course was conducted in Nairobi, and USAP seminars, designed to familiarize States with the tools and methodology used in the preparation, conduct and reporting of audits under the second cycle, were conducted in Casablanca, Moscow, Nairobi and Singapore.

In 2008, ICAO security audit teams completed audits of 22 States. Figure 8 shows the initial results, at the global level, for these second-cycle audits, as they relate to the implementation of the critical elements.

In line with the request of the 36th Session of the Assembly that the Council consider the introduction of a limited level of transparency with respect to aviation security audit results, the Council approved, in June, a proposal to introduce such transparency. Under this proposal, which balances the need for States to be aware of unresolved security concerns with the need to keep sensitive security information out of the public realm, a graphical representation of the implementation of the critical elements for each audited State has been made available to all Contracting States on the USAP secure website.

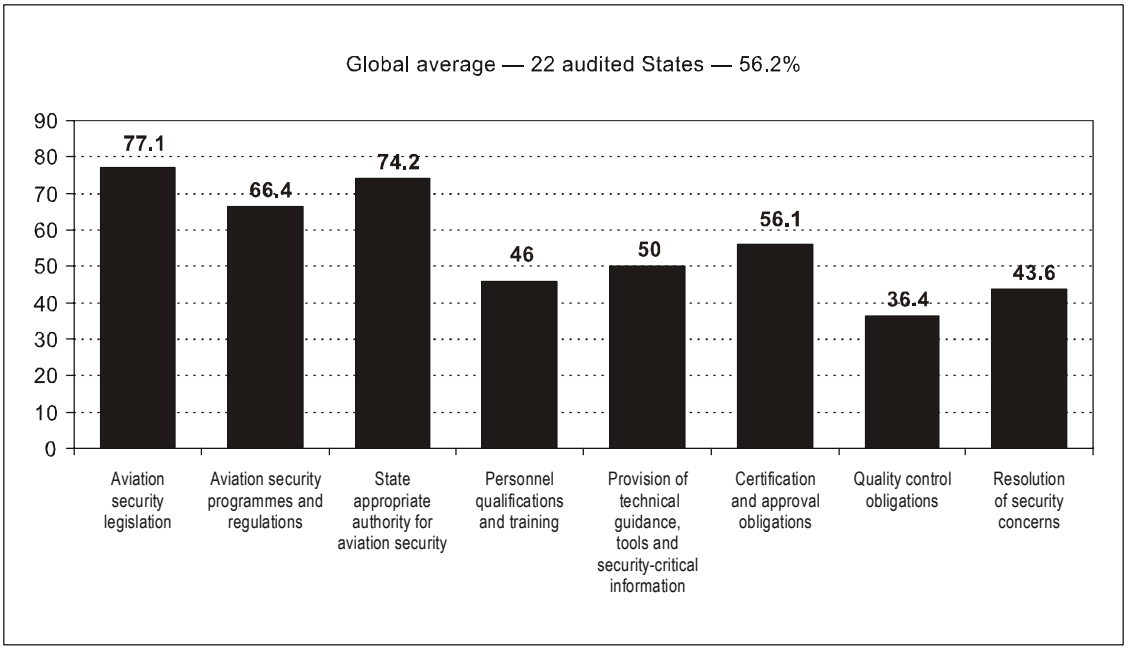


Figure 8. Degree of implementation of the critical elements of a security oversight system (%)

In September, ICAO and the European Community (EC) signed a Memorandum of Cooperation (MoC) concerning their respective aviation security audit and inspection programmes carried out in the 27 Member States of the European Union (EU). The MoC establishes mutual cooperation in the field of aviation security audits and inspections to ensure the optimum use of limited resources and to avoid duplication of effort, given that most of the Standards contained in Annex 17 — *Security* are also covered by relevant EC regulations. While it is anticipated that ICAO on-site audits will not be required in EU Member States, the MoC does not preclude the possibility of ICAO conducting such audits, and ICAO will continue to have a direct relationship with EU Member States.

Machine Readable Travel Documents (MRTD) Programme

ICAO published the third edition of Doc 9303, Part 3, *Machine Readable Official Travel Documents*. The specifications in this document are not intended to be a standard for national identity documents. Nevertheless, any State that participates in bilateral agreements with other States, and which allows its identity document to be used to cross borders between them, should design its identity document to conform to the specifications of Doc 9303, Part 3.

This third edition consists of two volumes: Volume I, which is an updated version of the second edition containing all the specifications required for a State wishing to issue a machine readable official travel document without the incorporation of machine-assisted biometric identification; and Volume II, which contains the specifications for enhancing the machine readable official travel document with the globally interoperable system of biometric identification and its associated data storage utilizing a contactless integrated circuit. ICAO also continues to publish a Supplement to Doc 9303 (e-version only), now in its seventh release. It includes an update on the Informative Appendix 1 to Section III — Security Standards for Machine Readable Travel Documents.

Following approval by the eighteenth meeting of the Technical Advisory Group on Machine Readable Travel Documents (TAG-MRTD/18), ICAO published the "Guidelines on e-MRTDs & Passenger Facilitation" (e-version only). The document illustrates how e-MRTDs may be used for an assisted (semi-automated) or even fully automated border inspection process as a way to promote expedited passenger flows within airports, seaports or at land borders. This document is available on the MRTD website:
http://www2.icao.int/en/mrtd/Pages/default.aspx

The TAG/MRTD also supported the creation of a new working group, the Implementation and Capacity Building Working Group (ICBWG). This group will serve as a forum for discussing and providing feedback on the implementation and operational aspects of the MRTD standards and specifications.

The New Technologies Working Group (NTWG) conducted its third Request for Information (RFI) initiative with a view to identifying new technologies that will provide future benefits to, or application of, the MRTD programme. For the 2007-2008 RFI, the NTWG panel identified a range of interest areas, which were divided into nine broad categories ranked and reviewed against a variety of qualitative and quantitative factors including aspects such as cost, innovation, and compatibility with current and future document issuance and border control processes. The panel considered the future ICAO goals for facilitation, security and global interoperability.

Since its establishment in March 2007, the number of participants in ICAO's Public Key Directory (PKD) has increased to 13. More Contracting States are expected to join in the coming months.

Dissemination and sharing of information on all aspects of MRTDs was a priority throughout the year. The Fourth Symposium and Exhibition on ICAO MRTDs,

Biometrics and Security Standards was held at ICAO Headquarters in October. This event highlighted new trends in MRTD issuance and border control reading systems. In addition, two workshops on travel document security and the implementation of ICAO MRTD standards and specifications were held, co-hosted with the Organization of American States (OAS), the Inter-American Committee against Terrorism (CICTE) Secretariat and the United Nations Counter-Terrorism Committee Executive Directorate (CTED). Furthermore, the MRTD Report is now published three times a year and is available in paper and e-versions on the MRTD website.

Beyond information and guidance, ICAO provided operational assistance in the implementation of MRTD-related projects to the following States: Algeria, Armenia, Bangladesh, Bosnia and Herzegovina, Cameroon, Colombia, Ecuador, El Salvador, Eritrea, Indonesia, Kiribati, Mauritius, Mexico, Namibia, Panama, Paraguay, Peru, Philippines, Thailand, The former Yugoslav Republic of Macedonia and Uzbekistan. Assistance was also provided to the United Nations Department of Management, Travel and Transportation Section, in connection with the UN Laissez-Passer.

Implementation Support and Development (ISD) Programme

In keeping with Assembly Resolution A36-20 — *Consolidated statement of continuing ICAO policies related to the safeguarding of international civil aviation against acts of unlawful interference*, the operational mandate of ISD aviation security activities can be observed from the perspective of its four pillars: Assistance to States; Regional Assistance; Global Cooperation; and Aviation Security Training.

ISD provides assistance to Contracting States in support of their efforts to rectify deficiencies identified under the Universal Security Audit Programme (USAP) and to comply with ICAO SARPs in Annex 17. ISD analyses the data from the audit reports in order to prioritize assistance to States. This analysis leads to the development of short-term assistance projects and serves as a basis for potential long-term assistance provided by the Organization's Technical Co-operation Bureau (TCB).

As a result of regional analysis of the USAP findings, topic-specific training material has been developed to assist States. The National Civil Aviation Security Programme (NCASP), the National Quality Control Programme (NQCP), the Airport Security Programme (ASP), the Screener Certification Programme and the National Civil Aviation Security (AVSEC) Training Programme are offered within the Aviation Security Training Centre (ASTC) network as well as to individual States.

In order to further develop regionalized aviation security assistance to States and continue to foster regional cooperation and partnerships, Aviation Security Regional Officers (ASROs) have been recruited for the Bangkok, Dakar, Mexico City, and Nairobi Regional Offices. ASROs serve as the primary focal point for

States requiring assistance with respect to audits and general assistance in the implementation of Annex 17. They have the responsibility of being the operational focal point for all training activities within their respective regions.

In follow-up to the Conference on the Development of the African Aviation Security Roadmap held in Addis Ababa in November 2007, a detailed work programme has been developed and presented to the African Civil Aviation Commission (AFCAC). The programme establishes the timeline for the follow-up meeting, reactivates a regional technical committee and provides for regionalized AVSEC training.

ISD continues to support the efforts of States to resolve safety and security deficiencies by seeking resources from States able to provide assistance, industry partners and stakeholders. To this end, partnerships and alliances have been developed for implementation throughout the triennium. Meetings have already been held with other ICAO bureaus, partner States and entities. This collaboration has given rise to the implementation of a common database of assistance projects for review by partners and States. This database is a reference for information on aviation safety and security assistance activities. It is designed to help identify complementary or overlapping assistance projects in order to eliminate redundancy and to avoid duplication in development efforts.

In order to assist Contracting States in the Latin American and Caribbean regions, a financial partnership between Transport Canada and the ISD programme/ AVSEC was established for the provision of workshops regarding AVSEC topics under Phase II of the Transport Canada Regional Security Awareness Project.

The traditional Aviation Security Training Packages (ASTPs) still continue to be an important part of aviation security training. Currently, nine ASTPs are being offered for sale: Airline, Basic, Cargo, Crisis Management, Exercise, Instructors, Management, National Inspectors, and Supervisors.

Pursuant to the ICAO Business Plan, new AVSEC training material is under development. Topics such as threat analysis, risk management and facilitation are being considered. This material is being developed in direct coordination with the Aviation Security and Facilitation Policy Section.

Globally, aviation security training has benefited by the increased independent role the ASTCs have played. In addition to training provided under the auspices of ISD, all ASTCs regularly provide AVSEC training that is open to the respective regions. Furthermore, several ASTCs have entered into bilateral agreements to provide both on- and off-site training to civil aviation administrations and airports. However, with the growing demand for AVSEC training, and the continued emergence of new threats, it is acknowledged that there is a need to continue the development and strengthening of the network.

In October, the sixth meeting of the ASTC Directors was held in Dakar. Included in the meeting’s discussion was the development of new training methodology and media, as well as the development of new aviation security training material.

At the conclusion of the meeting, a work programme with action items was drafted. This work programme would aid in the growth and coordination of the ASTC network.

With regard to the Professional Management Course (PMC), a total of 16 courses have been conducted in both English and French. A total of 204 participants successfully completed the course and received the designation of AVSEC PM (Professional Manager).

In addition to the previously identified objectives, the PMC has established a graduate community with an extremely active exchange of information. The programme has further demonstrated an increased level of bilateral and multilateral cooperation. It has also been reported that States are beginning to adjust mid- to senior-level employment criteria to include the successful completion of the PMC.

Technical cooperation projects and initiatives

Two regional and 17 national technical cooperation projects worldwide helped civil aviation administrations and international airports improve their security systems.

Under the Technical Co-operation Programme, ICAO recruited 37 international aviation security experts to assist in the review and development of national aviation security programmes, airport security programmes and aviation security regulations; provide classroom and on-the-job training to local aviation security inspectors and instructors; and assist in the implementation of machine readable travel document systems and security equipment.

Fellowship training on airport security was offered to one aviation security inspector, while more than 120 participated in seminars and workshops on aviation security-related subjects.

The implementation of the Cooperative Aviation Security Programme (CASP) project in the Asia and Pacific Region continued with the participation of 23 States. The ultimate objective of CASP is the establishment of a regional structure that promotes cooperation and coordination in aviation security matters and encourages the exchange of information among aviation security authorities, as well as greater harmonization of aviation security measures and the training of personnel. The project, representing a cost-effective solution to common aviation security deficiencies on a regional basis, resulted in the improved compliance of participating States and their international airports with international security requirements and ICAO SARPs.

In the Middle East Region, a major component of the COSCAP-Gulf States (GS) project is aimed at creating a regional structure for cooperation and coordination in aviation security matters and for training aviation security personnel. This includes the development of model national civil aviation security programmes

incorporating ICAO SARPs and enhanced security measures and procedures as well as activities related to the implementation of ICAO recommendations with regard to liquids, aerosols and gels (LAGs) and security tamper-evident bags (STEBs).

Major security purchases involved baggage X-ray equipment for airports and armoured vehicles. Related training by equipment suppliers benefited 16 national personnel of one State.

ENVIRONMENTAL PROTECTION

STRATEGIC OBJECTIVE C

Minimize the adverse environmental effects of global civil aviation activity, notably aircraft noise and aircraft engine emissions, through the following measures:

Develop, adopt and promote new or amended measures to:

- limit or reduce the number of people affected by significant aircraft noise;
- limit or reduce the impact of aircraft engine emissions on local air quality; and
- limit or reduce the impact of aviation greenhouse gas emissions on the global climate.

Cooperate with other international bodies and in particular the UN Framework Convention on Climate Change (UNFCCC) in addressing aviation's contribution to global climate change.

ENVIRONMENTAL PROTECTION

Protection of the environment was again given high priority in 2008, in line with Assembly Resolution A36-22 which guides the Organization's work in this area and calls for ICAO to exercise continuous leadership on environmental issues relating to international civil aviation, including greenhouse gas (GHG) emissions. Accordingly, the emphasis was placed on solutions for reducing the global footprint from aviation emissions and measures to limit the overall impact of air transport on the environment.

The main activities for 2008 included:

— Continuation of work for the eighth meeting of the Committee on Aviation Environmental Protection (CAEP/8) to be held in 2010, through the setting of Standards, the establishment of environmental goals, and the development of guidance, policies and procedures to reduce the impact of aviation on the environment;

— Development of tools and methods for quantifying aviation emissions and their impact, such as the ICAO Carbon Calculator;

— Cooperation with other bodies of the United Nations regarding climate change issues, especially with the United Nations Framework Convention on Climate Change (UNFCCC);

— Assistance in the development by the Group on International Aviation and Climate Change (GIACC) of an ICAO Programme of Action on International Aviation and Climate Change; and

— Strengthening of outreach activities to increase awareness of aviation environmental issues.

Committee on Aviation Environmental Protection (CAEP)

A key development in CAEP was the launching of Independent Expert (IE) reviews to establish technology and operational mid-term (10-year) and long-term (20-year) goals for noise, fuel burn and NO_x.

These IE reviews outline potential efficiency gains from technology and operational improvements, which can be used as a basis for setting mid-term and long-term goals. These goals help guide and coordinate technology developments at a global level, while providing benchmarks against which technological progress can be measured, thereby complementing the Standard-setting process. The second meeting of the CAEP Steering Group (SG), in preparation for CAEP/8, was held in Seattle in September.

Aircraft engine emissions

CAEP continued to study options to limit or reduce emissions from aviation, focussing on technical, operational, and market-based measures. A major step in this direction was the establishment of a “Commercial Aircraft System Fuel Efficiency Metric”, to be used with environmental trends/goals analyses.

A technical workshop on environmental benefits of operational measures, held in December, helped in the preparation of the IE reviews mentioned above. Work also continued on the exploration of the potential use of aviation alternative fuels, paving the way for a workshop on the subject in February 2009.

CAEP is currently conducting an analysis of NO_x stringency options accounting for interdependencies. It is expected that CAEP/8 will determine a stringency level based on this analysis. Regarding market-based measures, CAEP is studying the main issues involved in linking various emissions trading schemes, including those related to aviation. It is also exploring the potential for emissions offset measures to mitigate effects of aviation on climate change.

Aircraft noise

A technical workshop, followed by an IE review of noise reduction technologies, took place in September and CAEP initiated an analysis of how curfews in one region may have adverse environmental affects on another region.

Further refinements were brought to the test procedure provisions of Annex 16, — *Environmental Protection,* Volume I — *Aircraft Noise* and to the *Environmental Technical Manual on the Use of Procedures in the Noise Certification of Aircraft* (Doc 9501), to ensure clarity and alignment with the latest certification practices.

Data and modelling

CAEP continued to develop tools to assess noise, local air quality, and greenhouse gases in order to provide quantified projections for consideration through policy recommendations and decisions by CAEP/8.

The assessment of trends on noise, local air quality, and greenhouse gas will be projected for 2016, 2026, and 2036 relative to a 2006 baseline. In addition, specific forecasts will be prepared including the results of the IE reviews.

ICAO Carbon Calculator

The ICAO Carbon Calculator was officially launched during World Environment Day (5 June) after having been developed and harmonized by CAEP. The user-friendly Calculator is available on the ICAO public website for use by the general public. Discussions are continuing with the United Nations Environment

Management Group (EMG) on adapting it as an air travel “footprint” calculating tool for the entire UN system. The intention is to further develop the Calculator and have it adopted by all aviation stakeholders who find it of value. Plans include extending the methodology to estimate the CO_2 emissions attributable to air freight carried in either passenger or all-cargo aircraft.

Group on International Aviation and Climate Change (GIACC)

The 36th Session of the Assembly requested the Council to establish a Group on International Aviation and Climate Change — GIACC. Created in January 2008, the Group consists of 15 senior government officials representing all ICAO regions, with equitable participation from developing and developed States.

The GIACC was tasked with developing an aggressive ICAO Programme of Action on International Aviation and Climate Change, with the technical support of CAEP, based on consensus, and reflecting the shared vision and will of all Contracting States. The Programme of Action is to be reviewed at an appropriate time, taking into account the fifteenth meeting of the Conference of the Parties (COP 15) to the UNFCCC in December 2009.

The GIACC met twice in 2008, in February and July. After a comprehensive initial review of its task and identification of the areas in which decisions would need to be made, GIACC agreed to establish fuel burn/efficiency aspirational goals for the short-, medium- and long-term. Three working groups were formed to expedite work on each of the three key elements of the ICAO Programme of Action, as follows:

— Global Aspirational Goals Working Group: Establish the feasibility of possible aspirational goals and provide a set of options for global aspirational goals in the form of fuel efficiency, to be considered at the third meeting of GIACC.

— Measures to Achieve Emissions Reductions Working Group: Provide information on measures and best practices which States could use to address the climate change impact of international aviation.

— Monitoring and Implementation Working Group: Recommend to the GIACC how best to monitor and report on progress towards aspirational goals, in accordance with international obligations.

These working groups were tasked with bringing specific proposals forward for consideration at the third GIACC meeting to be held in February 2009. In parallel with the GIACC activities, CAEP has been progressing its technical work which will support and continue to inform the GIACC process, mainly on goal-setting and mitigation activities.

GIACC members also requested that ICAO make available data on aircraft operations fuel consumption through the cooperation of its Contracting States. Subsequently, a request for data on fuel consumption by commercial air carriers was sent to States in May. This data will be consolidated and analysed by the ICAO Secretariat.

Cooperation with other United Nations bodies

Cooperating with and assisting other United Nations bodies, especially on climate change activities, underpinned the activities of the Environmental Unit throughout the year. As in previous years, the main focus was on cooperation with the UNFCCC.

ICAO provided briefings and written submissions to the four UNFCCC meetings held in 2008 — the Bangkok Climate Talks in April, the Bonn Climate Talks in June, the Accra Climate Talks in August and the United Nations Climate Change Conference in Poznan, in December. Information was provided on ICAO policies regarding quantification, mitigation and adaptation, as well as challenges regarding international aviation emissions data collection, including methodological and legal implications.

The thirteenth meeting of the Conference of the Parties (COP 13) to the UNFCCC, in December 2007, launched the “Bali Road Map”, a comprehensive programme to enable the development of a future climate change agreement. With the establishment of GIACC, ICAO and the UNFCCC established two parallel streams of activity, both of which should culminate at the end of 2009. ICAO has been coordinating its activities with those of the UNFCCC and optimizing the information flow between the two bodies.

In order to reinforce ICAO's continuing leadership on aircraft emissions and climate change, a State Letter (ENV 1/1-08/44) sent in May emphasized the critical importance of aligning and coordinating the positions and views of States' representatives with those agreed in ICAO when taking part in meetings of other United Nations fora. The membership of ICAO represents a virtually identical constituency of States that are parties to the UNFCCC.

Additionally, ICAO has collaborated with the United Nations Chief Executives Board (CEB) for Coordination and the United Nations Environment Programme (UNEP) on the "UN Delivering as One" and the "UN Climate Neutrality" projects. Liaison also continued with the International Maritime Organization (IMO) to harmonize approaches for emissions reductions, due to the similarity of issues faced by both air and maritime international transport.

Outreach and Public Awareness Activities

From 18 to 19 June, the Organization held the ICAO Workshop on Aviation and Carbon Markets with, as keynote speaker, Mr. Yvo de Boer, Executive Secretary of the UNFCCC. The objective of the event was to familiarize participants with key issues related to aviation emissions and carbon markets. A variety of approaches including emissions trading and carbon offset programmes were addressed, together with a broad discussion on other flexible mechanisms under the Kyoto Protocol and the opportunities for a global aviation carbon market.

At the Accra meeting, the Secretariat organized a side event in cooperation with aviation manufacturers (International Coordinating Council of Aerospace Industries (ICCAIA)), airlines (International Air Transport Association (IATA)) and air navigation services providers (Civil Air Navigation Services Organisation (CANSO), entitled "Aviation Actions and Initiatives on Climate Change". The well-attended side event provided information on the main achievements and current activities designed to address emissions from international aviation at both technological and operational levels.

In July, a special edition of the ICAO journal was dedicated to the environment "Aviation and the Environment" issue (Volume 63, No. 4). A special Environment edition will be published each year.

Voluntary Contributions and Staffing

The 36th Session of the Assembly identified new tasks which were not included in the regular programme budget but considered crucial to fully achieve Strategic Objective C. State Letter ENV 1/1.1-08/10 requested States to pledge financial support for the Organization's environment-related activities.

Several Contracting States have made generous contributions, allowing the hiring of three Environmental Officers to help deliver the Organization's environmental work programme. Voluntary contributions thus far, however,

represent about 20 per cent of the requested amount. If additional financial contributions are not received, the current level of resources will be insufficient in 2009 to fully undertake the ICAO environmental programme.

France and Italy have each generously provided the Environmental Unit with a Junior Professional Officer.

Technical cooperation projects and initiatives

Three technical cooperation projects in environmental protection were implemented.

Two international experts were recruited to support one civil aviation administration and one international airport in the evaluation and improvement of their environment planning, preparation of environmental impact studies and implementation of noise abatement rules and routes as well as in the planning and operation of fuelling systems.

In-country training on air transportation and the environment was provided within the procurement process to 24 national personnel of one State.

EFFICIENCY

STRATEGIC OBJECTIVE D

Enhance the efficiency of aviation operations by addressing issues that limit the efficient development of global civil aviation through the following measures:

Develop, coordinate and implement air navigation plans that reduce operational unit costs, facilitate increased traffic (including persons and goods), and optimize the use of existing and emerging technologies.

Study trends, co-ordinate planning and develop guidance for States that supports the sustainable development of international civil aviation.

Develop guidance, facilitate and assist States in the process of liberalizing the economic regulation of international air transport, with appropriate safeguards.

Assist States to improve efficiency of aviation operations through technical cooperation programmes.

EFFICIENCY

Enhanced efficiency of aviation operations, achieved through the development, coordination and implementation of air navigation plans, helps to reduce operational unit costs, increase traffic and optimize the use of existing and emerging technologies. In 2008, a number of significant developments further contributed to improved efficiency.

Performance-based Approach

ICAO's efforts to continually improve the ATM system are centred on the *Global Air Traffic Management Operational Concept* (Doc 9854), the *Global Air Navigation Plan* (Doc 9750) and a performance-based approach to planning. The performance-based approach requires a strong focus on results through: adoption of performance objectives and targets; collaborative decision-making driven by results; and decision-making based on facts and data. Results are periodically assessed through a performance review which, in turn, requires adequate performance measurement and data collection capabilities.

To assist States and regional planning groups in identifying the most appropriate operational improvements and also to support implementation, the *Manual on Global Performance of the Air Navigation System* (Doc 9883) was completed. The manual facilitates consistency in strategy and traceability to previously agreed upon global results for each performance objective.

Performance-based Navigation (PBN)

Performance-based navigation (PBN) is a key component of the Global Air Navigation Plan and addresses objectives of the Global Air Traffic Management Operational Concept. It enables harmonized and predictable flight paths which result in more efficient use of existing aircraft capabilities, as well as improved safety, better fuel efficiency, greater airspace capacity, and resolution of environmental issues.

In 2008, the *Performance-based Navigation Manual* (Doc 9613) (formerly titled the *Manual on Required Navigation Performance (RNP))* was completed. SARPs were adopted and flight procedures approved supporting performance-based navigation. In addition, the three-volume *Quality Assurance Manual for Flight Procedure Design* (Doc 9906) is in preparation providing guidance to States on the quality assurance requirements for PBN flight procedure design. The Performance-based Navigation Study Group (PBNSG) is looking into new operational requirements needed under PBN.

The remaining six of ten planned familiarization seminars were held in Abuja, Baku, Lima, Nairobi, Paris, and Santo Domingo to assist States with PBN implementation. PBN task forces were established in each of the Planning and Implementation Regional Groups (PIRGs) and they have developed regional plans.

A key challenge for PBN implementation is State PBN flight procedure design capabilities. Accordingly, procedure design courses, conducted in cooperation with the Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP)-North Asia and École Nationale de l'Aviation Civile (ENAC) of France, were held in New Delhi and Hong Kong. Contacts are being made with other training organizations to expand training capability. Furthermore, progress has been made in establishing regional procedure design programmes to create sustainable capability in States.

NextGen/SESAR

The Forum on Integration and Harmonization of NextGen and SESAR into the ICAO Global ATM Framework was held in Montréal in September as the first step in focusing global attention on the two major programmes initiated by Europe and the United States, and to consider future air navigation system needs. Australia, Brazil, Canada, China, Denmark, India, Japan, Russian Federation and the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) each described their future plans while representatives from airports, air navigation services providers, airlines, pilots, air traffic controllers, maintenance specialists, business and general aviation, and manufacturers all offered their expertise. In turn, leaders from each of the technical Standards-making bodies provided background on developing the Standards to support the implementation of the systems.

New Larger Aeroplanes

The *Airport Services Manual* (Doc 9137), Part 5 — *Removal of Disabled Aircraft* was updated with additional guidance material, which was included in light of new larger aeroplane (NLA) operations at existing aerodromes and based on the code letter F specifications of Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*.

New ICAO Flight Plan form

A new ICAO flight plan form was developed to meet future needs of aircraft with advanced capabilities and the evolving requirements of automated ATM systems, while taking into account compatibility with existing systems, human factors, training, cost and transition issues. The flight plan represents an interim step toward a completely revamped system that would satisfy the information management requirements that are prerequisites to the realization of the ICAO Global ATM Operational Concept.

The Special Africa-Indian Ocean (AFI) Regional Air Navigation (RAN) Meeting

The Special AFI RAN Meeting addressed technical and operational implementation issues in a wide range of areas identified as requiring the most urgent action. The highest priority (e.g. those that provide the greatest environmental and efficiency benefits) included performance-based navigation (PBN) and the related implementation of World Geodetic System — 1984 (WGS-84), central monitoring of the recent reduced vertical separation minima (RVSM) implementation, certification of aerodromes, implementation of quality management systems for meteorological (MET) data, modernization of very small aperture terminal (VSAT), pandemic preparedness and establishment of search and rescue/joint rescue coordination centres. Additional information on the Special AFI RAN Meeting can be found under Strategic Objective A.

Introduction of reduced vertical separation minimum (RVSM) in the Africa-Indian Ocean (AFI) Region

In an effort to continue the enhancement of upper airspace efficiency, RVSM was introduced in the AFI Region in September. This increased the number of available flight levels by more than 85 per cent, allowing aircraft to fly closer to their optimum altitudes thereby increasing fuel efficiency and reducing costs and greenhouse gas (GHG) emissions. Related annual savings for the AFI Region are estimated at U.S.$85 million with an annual reduction of 250 thousand tons of CO_2.

Informal Meeting of International Standards-Making Organizations

ICAO, Aeronautical Radio, Incorporated (ARINC), the European Organization for Civil Aviation Equipment (EUROCAE), RTCA Inc., and the Society of Automotive Engineers (SAE) International met in September to look at establishing a closer working relationship amongst international Standards-making organizations. Expected benefits from working more cooperatively are: improved coordination; a common understanding of Standardization needs, both in general and in support of emerging aviation systems; and the opportunity to bridge any divisions that may arise. The discussion highlighted a need for procedures to support increased synergy in overall Standards development so as to identify gaps and avoid duplication of work. Continued face-to-face meetings are planned.

Aeronautical Telecommunication Network/Internet Protocol Suite (ATN/IPS)

Technical specifications and guidance material relating to the ATN/IPS were developed to supplement and support new SARPs, introduced as part of Amendment 83 to Annex 10 — *Aeronautical Telecommunications* which became applicable on 20 November 2008.

Radio Frequency Spectrum — ICAO Position for the International Telecommunication Union (ITU) World Radiocommunication Conference 2011 (WRC-11)

An initial draft ICAO position for the WRC-11, developed with the assistance of the Aeronautical Communications Panel-Working Group F (Frequency) and amended by the Air Navigation Commission, was distributed for comments to States and relevant international organizations in November. The draft position presents ICAO's views on all WRC-11 agenda items of interest to international civil aviation with the focus on safety, regularity and efficiency of flight. The overall aim is to protect the aeronautical spectrum for radiocommunication and radionavigation systems required for current and future safety-of-flight applications. In particular, it stresses that adequate protection against harmful interference as well as the protection of future spectrum capacity must be ensured before the sharing of any frequency bands allocated to safety-critical aeronautical systems can be considered. The position may also include proposals for new aeronautical allocations or modifications to existing allocations, to accommodate the continuing growth in air traffic and the potential need for additional spectrum by new technologies such as unmanned aircraft systems (UAS).

In keeping with Assembly Resolution A36-25 (Support of the ICAO policy on radio frequency spectrum matters), States were urged to firmly support the ICAO Position for the WRC-11 and in regional and other international activities conducted in preparation for the WRC-11.

Aeronautical Information

ICAO established a work programme to facilitate the global transition from aeronautical information services (AIS) to the broader concept of aeronautical information management (AIM) which features a different, data-centric method of information provision and management. This transition is needed to satisfy new requirements arising from the ICAO Global ATM Operational Concept. Present and future navigation systems, as well as other ATM systems, are dependent on data and require access to global, broad-based aeronautical information of a considerably higher quality and timeliness than is generally available today.

Key events of the work programme include:

— the ICAO Worldwide Symposium on Enabling the Net-Centric Information Environment (Montréal, 2 to 4 June 2008); and

— the formation of the AIS to AIM Study Group (AIS-AIMSG) which held its first meeting in December.

Conference on the Economics of Airports and Air Navigation Services

The Conference on the Economics of Airports and Air Navigation Services (CEANS), attended by 535 delegates from 103 States and 17 international organizations, was held at ICAO Headquarters in September. The Conference was preceded by a one-day symposium which attracted 433 participants and 16 exhibitors.

The Conference adopted recommendations aimed at enhancing cooperation in the air transport industry, in particular between regulators, providers and users, while increasing the efficiency and cost-effectiveness of airport operations and the provision of air navigation services. At the same time, the recommendations called for States to uphold the main principles of non-discrimination, cost-relatedness, transparency and consultation with users in their national legislation, regulations or policies, as well as in all air services agreements between States. Other notable recommendations included: support for separation of State regulatory responsibility from service provision; application of good corporate governance for providers through best practices; protection of passenger interests; more flexibility for commercialized airports and air navigation services providers in setting charges; and the efficient and cost-effective implementation of the ICAO Global ATM Operational Concept.

The recommendations of the Conference were endorsed and the revised *ICAO's Policies on Charges for Airports and Air Navigation Services* (Doc 9082, Eighth edition) was completed.

ICAO Air Services Negotiation Conference

The ICAO Air Services Negotiation Conference (ICAN2008) was held in Dubai in November. It was hosted by the Dubai Civil Aviation Authority and was attended by 106 delegates from 27 States and two international organizations.

The Conference was the first such event ever organized by ICAO and was designed to provide States with a central meeting place to conduct air services negotiations or consultations with their partners. By enabling each participating State to hold multiple negotiations at the same location, the Conference greatly improved the efficiency of the negotiation process. Over the three days of ICAN2008, a total of 100 formal and informal bilateral meetings were held between 26 delegations, leading to the conclusion of over 20 agreements/ arrangements. The Conference also provided a forum, through its seminar session, for participants to learn about related ICAO guidance and to exchange information and views on current trends and issues in liberalization. The delegates highly commended this innovative initiative and expressed strong support for future such events.

Symposium on Regional Organizations in Montréal

In collaboration with the European Commission, ICAO convened a Symposium on Regional Organizations in Montréal in April at which discussions took place on the impact of regional organizations on international civil aviation, as well as the contribution such organizations could make in supporting ICAO's work. Discussions also focused broadly on: regional cooperation on regulatory matters; removing barriers to air transport at the regional level; and regional governance of civil aviation and ICAO.

Efficiency — Regional Initiatives

A regional Air Transport Symposium (Abuja, 28 to 30 April 2008), hosted by the Government of Nigeria, apprised African States of ICAO's work in the field of air transport by identifying areas and formulating measures in which ICAO could be of assistance. Discussions at the Symposium included economic regulation and liberalization of international air transport; management and economics of airports and air navigation services; ICAO economic analysis and databases; and aviation environmental protection.

In collaboration with the World Bank, ICAO convened an Air Transport Development Forum on Maximizing Civil Aviation Contributions to Global Development, in Kuala Lumpur, in October. It focused on current challenges such as competition among carriers and their responses to the exponential growth of information technology and their competitive strategies in the region.

A PBN Regional Implementation Plan was adopted and published by the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) to provide direction and timelines for the implementation of PBN in the region. In the Middle East (MID) Region, a Regional and National Performance Framework was adopted.

Additional ATS routes (UL333, B466) were implemented in the Kabul FIR of Afghanistan, providing additional route capacity to the benefit of long-haul operations between South-East Asia and Europe. Route A419 in the United Arab Emirates (UAE) FIR was implemented and is the first RNP1 route in the MID Region.

The primary objective of the Asia/Pacific Area Traffic Forecasting Group (APATFG) is to develop forecasts of civil aviation activity in the Trans-Pacific and Asia/Pacific markets in order to support air navigation systems planning activities of ICAO and its Contracting States. During its fourteenth meeting held in Bangkok in September, the APATFG developed forecasts of air traffic in the Trans-Pacific area and in the Asia/Pacific region with a horizon to the year 2025 (including short-term forecasts for 2008-2010 and intermediate forecasts for the years 2015 and 2020), and for selected Trans-Pacific and Asia/Pacific major city-pair markets through to 2012. Forecasts are provided for total passenger traffic and aircraft movements, and in the case of the Transpacific market, also for

peak-hour movements on selected route groups for the year 2012. The peak-hour analysis is based on a detailed review of traffic during a typical July week in 2007 and 2008.

The Asia/Pacific Air Traffic Flow Management Task Force (ATFM/TF), using the Bay of Bengal Cooperative Air Traffic Flow Management Advisory (BOBCAT) system, was honoured with the Air Traffic Control Association (ATCA) Industrial Award for 2008. It was presented by ATCA to an industry leader for outstanding achievement relating to the quality, safety or efficiency of air traffic control.

Guidance and assistance was provided to the Air Traffic Management Bureau of the Civil Aviation Administration of China in handling the approximately 1 350 flights on 7 August 2008, leading up to the opening ceremony of the 2008 Olympic and Paralympics Games.

The operational trial of data link automatic dependent surveillance/controller-pilot data link communications (ADS/CPDLC) in the South China Sea area was successfully completed.

A data link harmonization strategy was developed by the European and North Atlantic (EUR/NAT) Data Link Steering Group (DLSG).

States in the South-East Asia Region agreed to share automatic dependent surveillance-broadcast (ADS-B) data for operational purposes. A sample agreement and a framework for cost apportionment was developed.

A project to enhance the meteorological services for aviation in the South Pacific (Cooperative Agreement for Enhancement of the Meteorological Service in the South Pacific (CAEMSA-SP)) was established in conjunction with the ICAO Technical Co-operation Bureau (TCB) and eight South Pacific Island States to promote sustainable development of meteorological services.

In the MID Region, the very small aperture terminal (MID/VSAT) project Phase I was successfully implemented.

Aeronautical information publication (AIP) supplemental procedures for the 2008/2009 Hajj Operation were published and transmitted to States and international organizations concerned, in collaboration with ASECNA and the International Air Transport Association (IATA).

A Caribbean and South American (CAR/SAM) PBN action plan was approved as guidance material for States in implementing their own national plans.

ATS message handling systems (AMHS) were implemented in Argentina, Ecuador, Paraguay and Peru to support and expedite AMHS implementation using IPv4 protocol suite.

SAFIRE, a regional online tool that improves aeronautical frequency coordination, increases efficiency and provides full transparency in the use of the aeronautical radio frequency spectrum, was implemented for very high frequency (VHF) communications.

Technical cooperation projects and activities

There were 51 national and 20 regional technical cooperation projects dealing with the efficiency of air transport operations.

The areas where advice was provided by the 196 international experts recruited included global navigation satellite systems; radars and navigation aids; ground support equipment; aerodrome, air routes and ground aids; communications; air traffic management; aeronautical meteorology; airport planning, development and operation; airport engineering; privatization of airports and air navigation systems and air transport economics.

Fellowship training of 181 nationals was carried out in aeronautical information services, aeronautical meteorological services, air traffic management, search and rescue, aeronautical communications and operations, navaids maintenance and airport engineering and maintenance. In-country group training through seminars was given in some of these areas.

Training related to the planning, development or modernization of airports and air navigation facilities was carried out within the procurement component of projects. The equipment and services purchased were aerodrome ground support equipment such as baggage handling systems, runway sweepers, passenger boarding bridges and CCTV systems. Other equipment procured included navigation aids, communications systems, surveillance systems, air traffic management systems, as well as airport terminal building related civil works, equipment and services and aircraft inspection and overhaul. A further major procurement consisted of the purchase of an aerodrome perimeter fence. Related training, including maintenance, factory and on-the-job training, was given to 368 nationals from the various regions.

Regional projects aimed at the modernization of air navigation systems for the transition to a modern CNS/ATM environment were implemented in the Caribbean and South American Regions. These projects were effective in promoting inter-regional cooperation and coordination and ensuring compliance with the Global Plan, regional air navigation plans and applicable ICAO SARPs. This involved the procurement of equipment, provision of expertise and specialized training to technical and operational personnel in the air navigation fields.

CONTINUITY

STRATEGIC OBJECTIVE E

Identify and manage threats to the continuity of air navigation through the following measures:

Assist States to resolve disagreements that create impediments to air navigation.

Respond quickly and positively to mitigate the effect of natural or human events that may disrupt air navigation.

Cooperate with other international organizations to prevent the spread of disease by air travellers.

CONTINUITY

ICAO's efforts in maintaining the continuity of air navigation focused largely on preventing the spread of communicable disease through air travel and being prepared for natural or human events that could disrupt air navigation services.

During 2008, the Organization held two preparedness planning workshops in Africa and a number of African States agreed to join the CAPSCA project (Cooperative Arrangement for Preventing the Spread of Communicable Disease through Air Travel), a joint Air Navigation Bureau (ANB)/Technical Co-operation Bureau (TCB) initiative. In 2009, it is anticipated that more States will join the project and that airport evaluations against the ICAO guidelines will commence in the region. In Asia, additional States joined the CAPSCA project. Steering Committee and Regional Aviation Medicine Team meetings were held and another four international airports were evaluated.

A joint World Health Organization/ICAO prototype evaluation was undertaken in China with a view to potentially holding further joint evaluations in the future. Towards the end of the year, a third grant was provisionally approved by the United Nations Central Fund for Influenza Action (CFIA) to enable CAPSCA to expand into a third region, South America, in 2009. In addition, action was initiated to include topics relevant to public health preparedness planning in Annex 11 — *Air Traffic Services* and Annex 14 — *Aerodromes*.

Regional Initiatives — Continuity

ATS contingency plans were reviewed and upgraded in readiness for natural or human events that could disrupt air navigation services. The ATM national contingency plan for Indonesia, finalized during 2007, was disseminated as the model for the Asia and Pacific Region. Bolivia, Brazil, Chile, Colombia, Peru and Venezuela updated, coordinated and harmonized their national contingency plans.

Search and rescue (SAR) agreements in four regions were concluded — Caribbean (CAR), Middle East (MID), Africa-Indian Ocean (AFI) and South American (SAM).

Comprehensive volcanic ash exercises were conducted in the European (EUR) and North Atlantic (NAT) Regions to improve regional volcanic ash contingency plans.

Technical cooperation projects and initiatives

The continuity of air operations was supported by the implementation of 25 regional and 72 national projects.

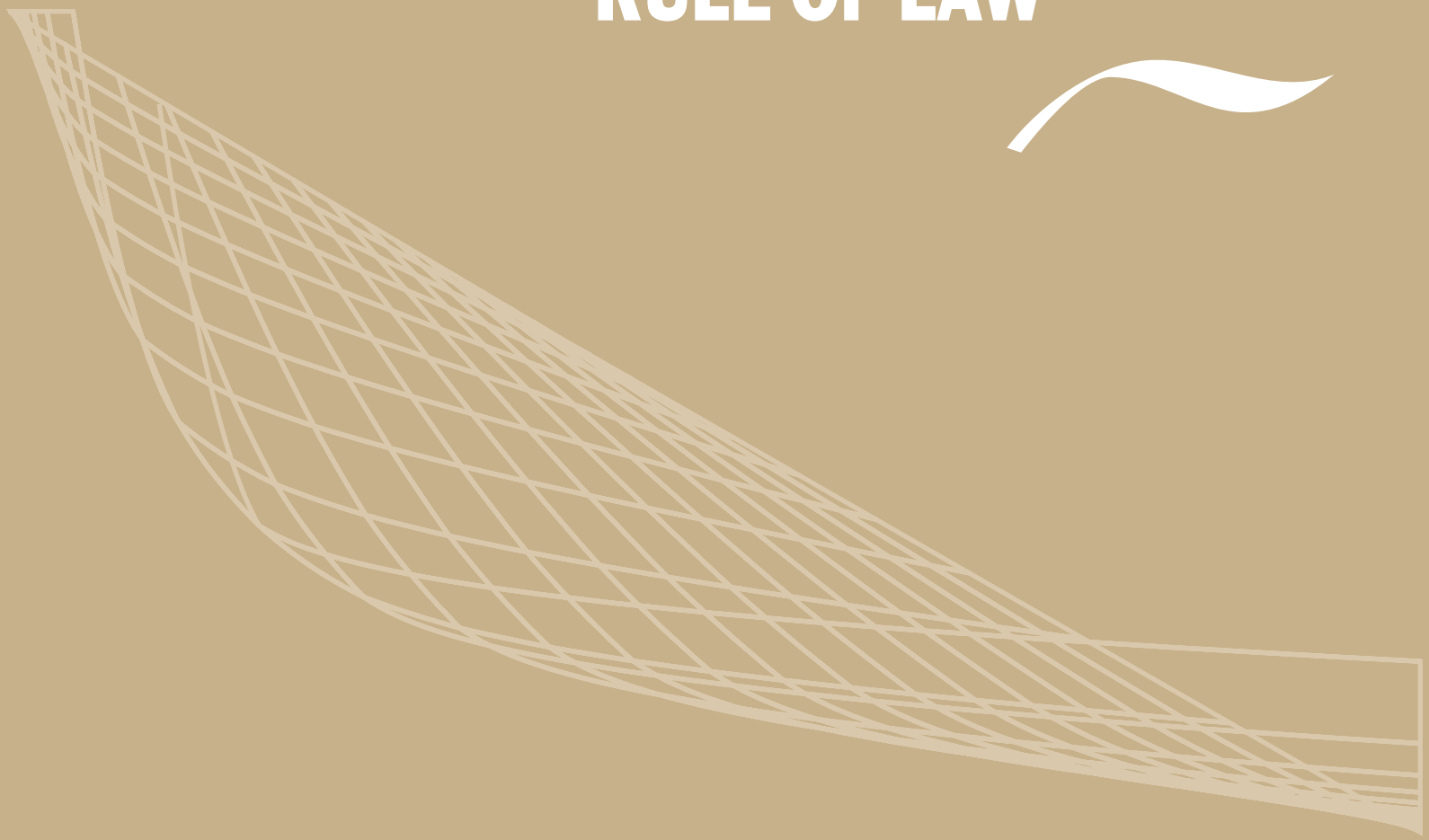
The 72 international experts recruited provided assistance to civil aviation administrations in the prevention of the spread of communicable diseases, in language training, and in training needs and technology, including the development or implementation of TRAINAIR projects.

Fellowship training of 30 national personnel concentrated on general civil aviation management and training technologies.

Services subcontracted included Aviation English workshops to personnel and instructors of civil aviation authorities.

On a regional basis, the Cooperative Arrangement for Preventing the Spread of Communicable Disease through Air Travel (CAPSCA) project, which aims at reducing the risk of spreading Avian Influenza and similar communicable diseases at major international airports, is currently being implemented in the Asia and Pacific and Africa Regions with the participation of 10 and four countries, respectively.

RULE OF LAW



STRATEGIC OBJECTIVE F

Maintain, develop and update international air law in light of evolving needs of the international civil aviation community by the following measures:

Prepare international air law instruments that support ICAO's Strategic Objectives and provide a forum to States to negotiate such instruments.

Encourage States to ratify international air law instruments.

Provide services for registration of aeronautical agreements and depositary functions for international air law instruments.

Provide mechanisms for the settlement of civil aviation disputes.

Provide model legislation for States.

RULE OF LAW

International air law

Pursuant to a decision of the 184th Session of the Council, the General Work Programme of the Legal Committee is as follows:

1) *Compensation for damage caused by aircraft to third parties arising from acts of unlawful interference or from general risks.*

The 33rd Session of the Legal Committee, held in Montréal from 21 April to 2 May 2008, had this subject as its main item for consideration. The Committee agreed on the following texts:

a) Draft Convention on Compensation for Damage to Third Parties, Resulting from Acts of Unlawful Interference Involving Aircraft; and

b) Draft Convention on Compensation for Damage Caused by Aircraft to Third Parties.

On 23 June, the Council decided to convene a Diplomatic Conference at ICAO Headquarters from 20 April to 2 May 2009, to finalize and adopt the texts of these two draft Conventions.

2) *Acts or offences of concern to the international aviation community and not covered by existing air law instruments.*

The Sub-Committee of the Legal Committee held its second meeting in February 2008 and prepared two draft texts to amend the Hague Convention of 1970 and the Montréal Convention of 1971. The Council agreed in June to convene the 34th Session of the Legal Committee in the second half of 2009 for further consideration of these texts.

3) *Consideration, with regard to CNS/ATM systems including global navigation satellite systems (GNSS) and the regional multinational organisms, of the establishment of a legal framework*.

The Secretariat continued to monitor the work in this respect.

4) *International interests in mobile equipment (aircraft equipment).*

On behalf of the Council in its capacity as the Supervisory Authority of the International Registry, the Secretariat continued monitoring the operation of the Registry to ensure that it functions efficiently in accordance with Article 17 of the Cape Town Convention of 2001. The

Council issued its first report to Contracting States to the Cape Town Convention and Protocol concerning the discharge of its functions as Supervisory Authority and, at its 183rd Session, approved changes to the Regulations and Procedures for the International Registry. At its third meeting in December, the Commission of Experts of the Supervisory Authority of the International Registry (CESAIR) recommended further changes proposed by the Registrar for approval by the Council.

5) *Review of the question of the ratification of international air law instruments.*

The Secretariat continued to take administrative action necessary to encourage ratification, such as the development and dissemination of ratification packages, promotion of ratification at various fora, such as meetings, and continued emphasis on ratification matters by the President of the Council and the Secretary General during their visits to States.

6) *Safety aspects of economic liberalization and Article 83* bis.

In June, the Council requested the Secretariat to further monitor and develop as necessary the issue of safety aspects of economic liberalization and Article 83 *bis* of the *Convention on International Civil Aviation* (Doc 7300) and to add this item to the General Work Programme of the Legal Committee.

Working Group on Governance (Policy)

In March, during its 183rd Session, the Council decided to establish the Working Group on Governance (Policy) — WGOG, with secretariat functions provided by the Legal Bureau (LEB). The WGOG was mainly tasked to review: the international governance as per the Chicago Convention as requested by the Assembly; the organization of future sessions of the Assembly; and the presentation of the decisions of the Assembly, as well as the question of reservations thereto. The WGOG decided to prioritize its work on the issues pertaining to the Assembly, including recommendations on the establishment of an electronic voting system for the elections of the Council, so as to present a report on this item in early 2009.

The Council further tasked the WGOG, in June and October respectively, to review the issue of the participation of observers in the Legal Committee as well as the process for electing the officers (Chairman and Vice-Chairmen) of this Committee with a view to establishing a more systematic and effective approach.

Moreover, in November, during its 185th Session, the Council requested the WGOG to consider the increased use of extraordinary sessions of the Assembly to avoid a multiplicity of meetings every year and to facilitate the decision-making process and report thereon to the Council. During the same session, the Council

also mandated the WGOG to study the question of allocation of seats on the Council, being understood that the Group would give that issue priority after it had completed its other tasks.

External Relations

On 18 November, the Secretary General announced that the External Relations and Public Information Office (EPO) had been disbanded and that the staff responsible for external relations functions were transferred with their posts to the Legal Bureau, which was renamed the Legal Affairs and External Relations Bureau (LEB).

Ratification of international air law instruments

Work commenced in 2008 to enhance the Legal Bureau's Treaty Collection on the ICAO website. When completed, it will contain current lists of parties to treaties; status forms of individual States with regard to treaties; a composite table showing parties to treaties and status of individual States; a chronological record of depositary activity; and administrative packages to assist States in becoming parties to international air law instruments. The current Treaty Collection is being updated with each depositary action.

Settlement of disputes

In a number of instances, the Legal Bureau assisted the President of the Council and the Secretary General in their efforts to encourage or facilitate negotiations between States in cases of emerging disputes.

Technical cooperation projects and initiatives

Ten technical cooperation projects were implemented to support activities linked to international air law.

ICAO recruited 13 international experts to advise civil aviation administrations in the development or updating of civil aviation legislation, including basic civil aviation law and regulations addressing ICAO Standards and other international civil aviation-related treaties for incorporation into national law.

Eighteen nationals received specialized training in the field of air and space law.

SUPPORTING IMPLEMENTATION STRATEGIES

SUPPORTING IMPLEMENTATION STRATEGIES

Language and publications

The Language and Publications Branch (LPB) was faced with a particularly difficult challenge in 2008. In the previous year, the 36th Session of the Assembly approved an operating budget based on a set of Council recommendations, that included the reallocation of resources from Supporting Implementation Strategies to Strategic Objectives. The strategy was to achieve this by reducing, inter alia, resources in LPB. Over the course of the triennium, up to 60 per cent of translation work would be outsourced without compromising quality and timeliness. For such a radical approach to succeed, Governing Bodies were to prioritize their work programme and reduce by one third their yearly requirements for interpretation and translation services.

A Report on the impact of the Budget requirements on the provision of language services showed that there was consensus on the need to bridge the gap between resources budgeted for language services and demand for the services. A cut in language services would have negative implications for many ICAO stakeholders, including Contracting States and industry.

There was also consensus on the need to resolve the language services situation in this triennium, since any solution would lay the foundation for a longer-term resolution of the issue to be implemented in the framework of the 2011-2013 budget.

A temporary solution was to partially reduce translation demand by streamlining and prioritizing, when possible, language requirements and through incremental outsourcing from 30 per cent to 40 per cent, with funding coming from a combination of excess miscellaneous income and a partial carry forward from 2007.

Translation output was 28 per cent lower than in 2007; interpretation was provided to 258 meeting sessions; there was a 3.8 per cent decrease in the production of saleable publications coupled with sustained progress in electronic publishing and availability of documentation online.

Human resources

Throughout the year, the Human Resources Branch (HRB) focused its efforts on helping the newly established Human Resources Committee (HRC), most notably in its review of existing ICAO Staff Regulations and Staff Rules and policies concerning the recruitment of staff at Principal Officer and Director levels (D-1 and D-2), as well as in the Professional (P-1 to P-5) and General Service categories.

HRB also reviewed progress made in the implementation of the new performance management system called Performance and Enhancement of Competencies (PACE). Slightly over 90 per cent (661) of staff members duly completed their PACE reports through interviews with their supervisors. Encouragingly, the number of rebuttals was considerably reduced, with only four cases. In addition, the rating of the staff indicated a more balanced assessment, as more than 68.9 per cent of the staff "met expectations" while only 20.5 per cent "exceeded expectations" and less than one per cent "did not meet expectations". This also points to a more consistent assessment by supervisors. In its preliminary assessment, the PACE system was shown to be fully playing its role as a performance management tool and certainly contributing to improve the overall performance of staff in reaching the objectives of the Organization in terms of skill sets.

At year end, there were 576 established posts within the Organization funded by the Regular Programme and the Administrative and Operational Services Cost (AOSC) Fund — 264 in the Professional and higher categories and 312 in the General Service category. With regard to the recruitment for Professional posts, in the majority of the cases, the procedures were completed within the six-month timeline approved by Council. All eleven external appointments, subject to Equitable Geographical Representation, were from unrepresented States or those below the target levels.

During the year, HRB consolidated its training programme, which encompassed executive, managerial, technical, administrative and information technology courses. Despite a reduction of 50 per cent in the training budget, HRB was able to offer 25 courses, primarily managerial training tailored to the specific needs of Bureaus and Offices. Limited funds were also allocated to each Regional Office in order to respond to their specific training needs. The courses included project management and project planning, risk assessment, tracking and control, performance management behaviour, human factors and implementing and managing a project portfolio. A total of 411 staff members attended at least one training course. The training programme is considered successful and has certainly contributed to the enhancement of staff members' competencies and skills.

Records management

Increased efficiency of administrative processes underpinned the decision to gravitate towards an organization-wide Electronic Documents and Records Management System. A Secretariat Group headed by the Director of the Bureau of Administration and Services was created to review current procedures and recommend specific attributes and functionalities that would be required of the new system. This in-depth assessment was also considered essential because of the complexity and relatively high cost of any new administrative infrastructure. The results of the study will serve as the basis for incorporating the project into the Budget for the next triennium.

During 2008, a number of initiatives further helped to increase the effectiveness of administrative processes. As a result of the partial restructuring of the Bureau of Administration and Services, Archives became an integral part of the Records Management Section (RMS), facilitating the coordination of current and historical records and improving transparency of the status of records and quality of reference services, all with reduced staff.

Efforts to further reduce the volume of printed materials and rely more on electronic transmission of documents were pursued through the substantial review of the *ICAO Publications Regulations* (Doc 7231). Its eleventh edition, with streamlined format, is scheduled to be published in early 2009.

Steps were taken towards the full implementation of a print-on-demand policy in 2009. Transfer of management and administration of ICAO stationery supplies to the RMS led to improved transparency in the stationery inventory and consumption, and improved service.

Distinction award

In 2008, the ICAO Headquarters building was awarded the Leadership in Energy and Environmental Design gold certification (LEED-EB) by the United States Green Building Council, the first building in Canada to receive the distinction. The prestigious award was granted in recognition of efficient and environmentally friendly building management practices.

TECHNICAL COOPERATION PROGRAMME

TECHNICAL COOPERATION PROGRAMME

Supporting Contracting States in the implementation of ICAO regulations, policies and procedures, the Technical Cooperation Programme is a permanent priority activity of the Organization, complementing the technical role of the Regular Programme.

The Technical Co-operation Bureau (TCB) provides a broad spectrum of services, including assistance in the review of the structure and organization of national civil aviation institutions, updating the infrastructure and services of airports, facilitating technology transfer and capacity building, promoting ICAO Standards and Recommended Practices (SARPs) and supporting remedial action resulting from the Universal Safety Oversight Audit Programme (USOAP) and the Universal Security Audit Programme (USAP) audits.

In 2008, ICAO implemented a Technical Cooperation Programme of U.S.$157 million. Under various Trust Fund arrangements, TCB executed 320 projects in 72 countries, of which 36 were operationally completed during that year. Summaries of technical cooperation projects implemented in 2008 are shown on the ICAO public website under country, inter-country and inter-regional listings.

Approximately 99.5% of the total Programme was funded by developing countries financing their own technical cooperation projects. Extra-budgetary contributions to specific project funds provided by other donors such as development banks, regional organizations, funding institutions and the aviation industry amounted to 0.5%, including voluntary contributions in kind. The United Nations Development Programme (UNDP) core contribution to the Programme amounted to 0.5%.

Over the 2006 to 2008 period, the annual Programme increased 39.7%, primarily due to growing demand from ICAO Contracting States for assistance in complying with government requirements in various civil aviation areas. ICAO pursued its efforts to reduce the gap in assistance between the various geographical regions to achieve a more balanced programme.

The 2008 Programme is closely aligned with ICAO Strategic Objectives and technical cooperation projects cover a wide range of subjects: civil aviation master planning; human resource planning and development; administration and legislation; communication and navigation; aviation security; aviation meteorology; airworthiness and flight operations; safety management systems; aviation medicine; airport feasibility studies, construction and management; air traffic services; and introduction of the ICAO TRAINAIR methodology; as well as global and regional fellowship training programmes.

The Technical Cooperation Programme by region
(in millions of U.S. dollars)

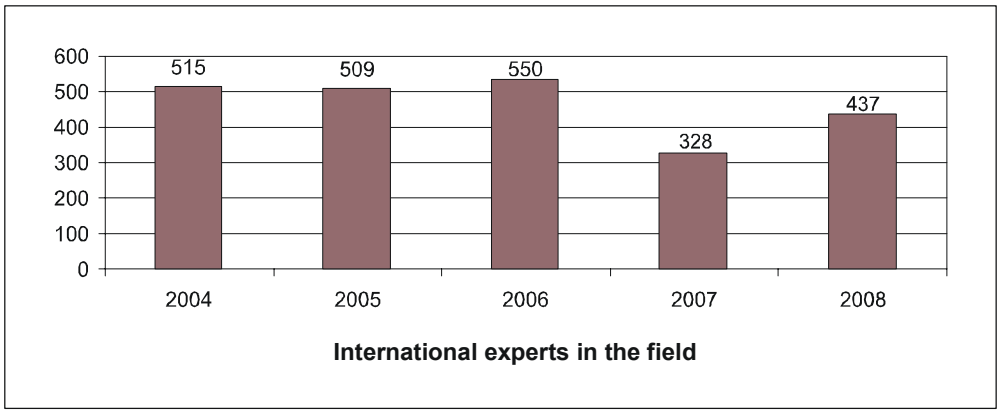
Region	2006	2007	2008	Increase (+)/ decrease (–) 2008 vs 2006 (%)
Africa	9.59	14.58	29.28	19.69 (205.3%)
Americas	141.76	182.52	155.39	13.63 (9.6%
Asia and the Pacific	5.20	6.12	9.70	4.50 (86.5%)
Europe and the Middle East	13.32	26.39	42.88	29.56 (221.9%)
Total	**169.87**	**228.61**	**237.25**	**67.38 (39.7%)**

The three main components of projects implemented by ICAO are experts recruited to provide technical cooperation at the field level, fellowships awarded to personnel of civil aviation departments selected by the government, and equipment and services procured for projects.

Recruitment of experts

The total number of international field experts and consultants recruited in 2008 was 437. There were also 1 338 national project personnel for a total of 1 861 serving officials, including 86 international field experts and consultants who were already in the field serving in ongoing projects. These experts were recruited to serve as advisers to national civil aviation administrations, as well as to serve as instructors either at training centres or on the job, or to serve as executive personnel providing operational and administrative services for the government, including inspectors, where States lacked the capability.

The recruitment, training and retention of qualified national civil aviation professionals and safety inspectors through technical cooperation projects continued to improve aeronautical authorities' control and inspection capabilities. In providing assistance to civil aviation authorities, the experts contributed to the achievement of ICAO's Strategic Objectives through the transfer of knowledge in various fields to national counterparts, the implementation of ICAO SARPs, the development of adequate civil aviation organizational structures, institutional development and capacity building and the rectification of safety and security deficiencies.



Civil aviation training

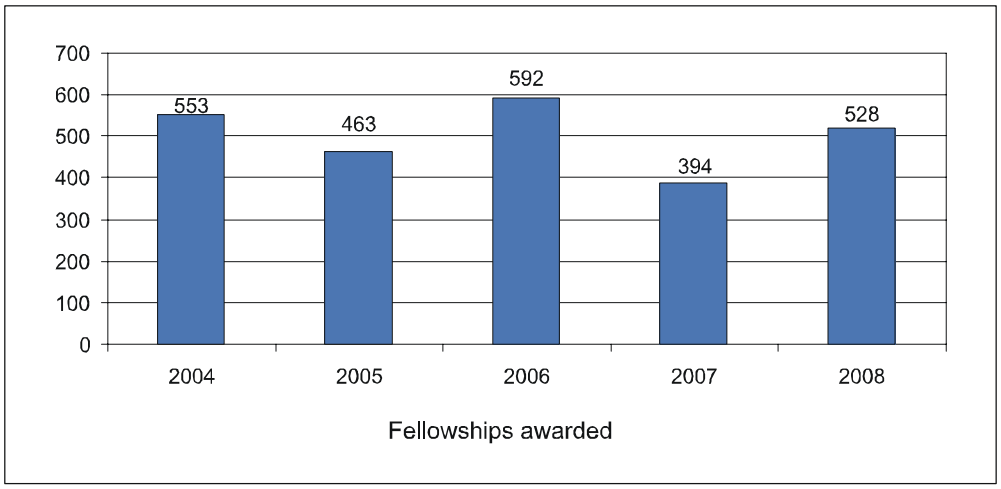
During the year, 528 fellowships were awarded for a total duration of 359 work/months. Within the framework of Memoranda of Understanding signed by ICAO with China, India, the Republic of Korea, Singapore and Thailand for the provision of training to be funded by these countries and administered by ICAO, a total of 12 fellowships were awarded for training at the Training Institute NIAMAR of the Airports Authority of India in the fields of airport certification and airport safety management systems; 51 fellowships at the Korea Civil Aviation Training Centre in the fields of Global Satellite Navigation Systems (GNSS), Doppler VOR and radar approach; a total of 52 awards were issued by the Singapore Civil Aviation Academy in the fields of aircraft accident investigation, civil aviation management, safety oversight airworthiness inspection, safety oversight airworthiness/flight operations, safety oversight management and integrated safety management systems; and 36 fellowships were issued to participants in courses held at the Civil Aviation Training Centre of Thailand on aviation English language proficiency; CNS/ATM and Flight Operations Officer/Flight Dispatcher.

In addition to the fellowships awarded in various fields, the in-country training programmes undertaken by instructors under TCB projects trained over 2 500 technical, managerial and operational personnel of civil aviation administrations, demonstrating continued awareness by States of the importance of civil aviation training.

Compensating for the low UNDP funding, which traditionally supported fellowship training, recipient States continued to include substantial training for their nationals as part of the procurement component of their ICAO technical cooperation projects. In 2008, 447 national staff benefited from training in new technologies and in the operation of equipment purchased through ICAO projects, such training totalling U.S.$2.7 million.

Considering the importance of the human element as a key factor in the safety of civil aviation, training of management, technical and operational personnel particularly contributed to improving the oversight capabilities of civil aviation

administrations of recipient countries. In accordance with information received from States, staff trained through the TCB Programme are being progressively absorbed by civil aviation administrations, which greatly benefit from the sharing of knowledge and from the training and retention of a workforce of qualified aviation safety and security personnel and inspectors.

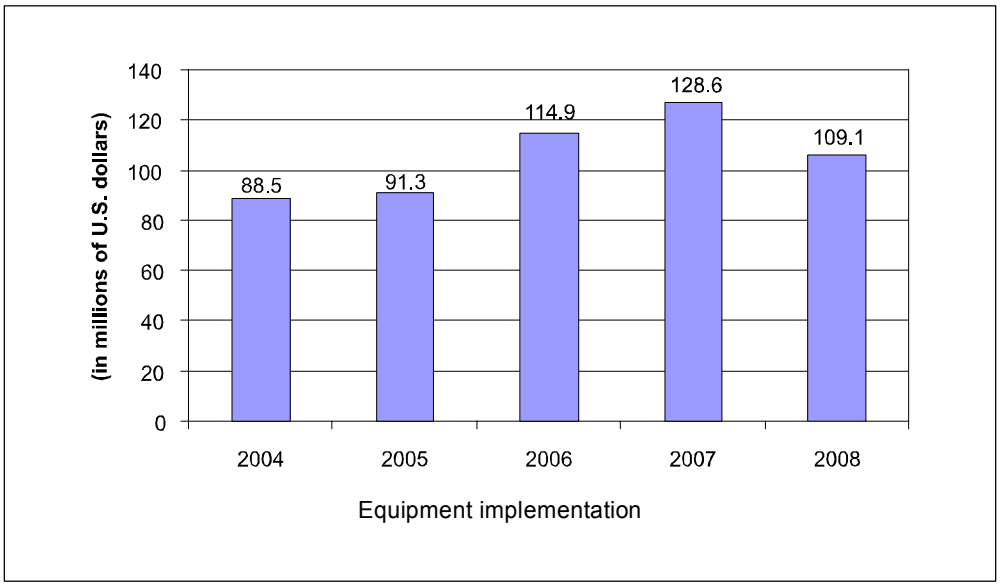


Equipment and subcontracts

During 2008, 486 purchase orders and subcontracts were issued for the TCB Programme. The total field procurement implementation was U.S.$109.1 million. Assistance provided to States to upgrade their civil aviation infrastructure ranged from the development of technical specifications, tendering and administration of complex multi-phase turn-key contracts to the commissioning of equipment, and had a direct and positive impact on the improvement of safety and security of airports, communications and air navigation infrastructure, enabling more efficient and economic aviation operations in the countries and regions concerned.

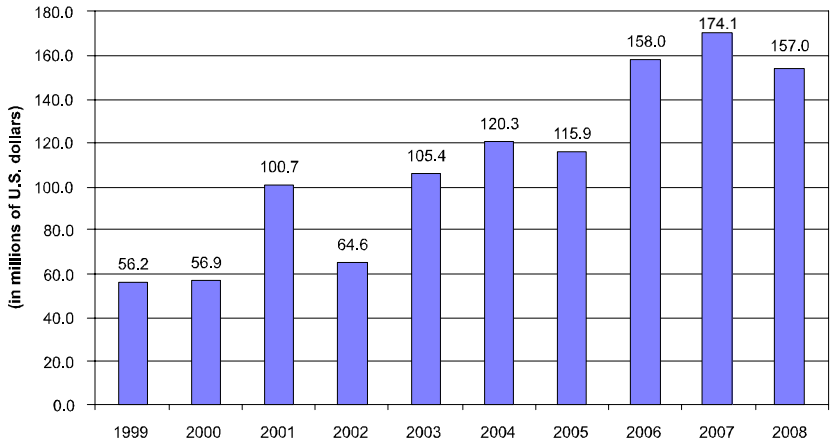
The equipment and services procured by ICAO had a direct impact on the improvement of the civil aviation infrastructures of States and the safety and efficiency of air operations. In particular, ICAO expertise ensured that technical specifications were in compliance with applicable ICAO SARPs and regional air navigation plans.

A further 230 purchase orders and subcontracts for CAD 8.5 million were issued by TCB covering procurements of equipment and services for the ICAO Regular Programme and Technical Co-operation Bureau (TCB) administrative needs. The most significant project implemented in 2008 was the Contract for Public Key Directory, Phase II for U.S. $1.5 million. Other major procurements included the extension of the Contractual Agreement for SharePoint implementation (CAD 88 000), ISDB Database Upgrade (CAD 130 000), and the Pilot Project/ Cost Recovery Study (CAD 107 250).



Implementation volume by Strategic Objective
(in U.S. dollars)

Strategic Objective	The Americas	%	Africa	%	Asia and Pacific	%	Europe and Middle East	%	Total Programme
A (Safety)	35 581 350	36.8	2 787 498	13.4	2 844 417	43.0	10 879 719	33.1	52 092 984
B (Security)	483 442	0.5	1 809 793	8.7	396 895	6.0	12 884 742	39.2	15 574 873
C (Environment)	1 063 573	1.1	0	0	0	0	0	0	1 063 573
D (Efficiency)	41 576 034	43.0	16 017 711	77.0	1 012 083	15.3	8 052 964	24.5	66 658 792
E (Continuity)	17 887 363	18.5	104 011	0.5	2 136 620	32.3	1 051 816	3.2	21 179 811
F (Rule of Law)	96 688	0.1	83 209	0.4	224 907	3.4	0	0	404 805
Total	**96 688 451**	**100.0**	**20 802 222**	**100.0**	**6 614 924**	**100.0**	**32 869 241**	**100.0**	**156 974 837**



Total Technical Cooperation Programme implementation*

* Total Programme Implementation includes expenditures, unliquidated obligations as well as procurement of equipment effected by ICAO for which payments are made directly by the governments to suppliers.

The Administrative and Operational Services Cost (AOSC) Budget

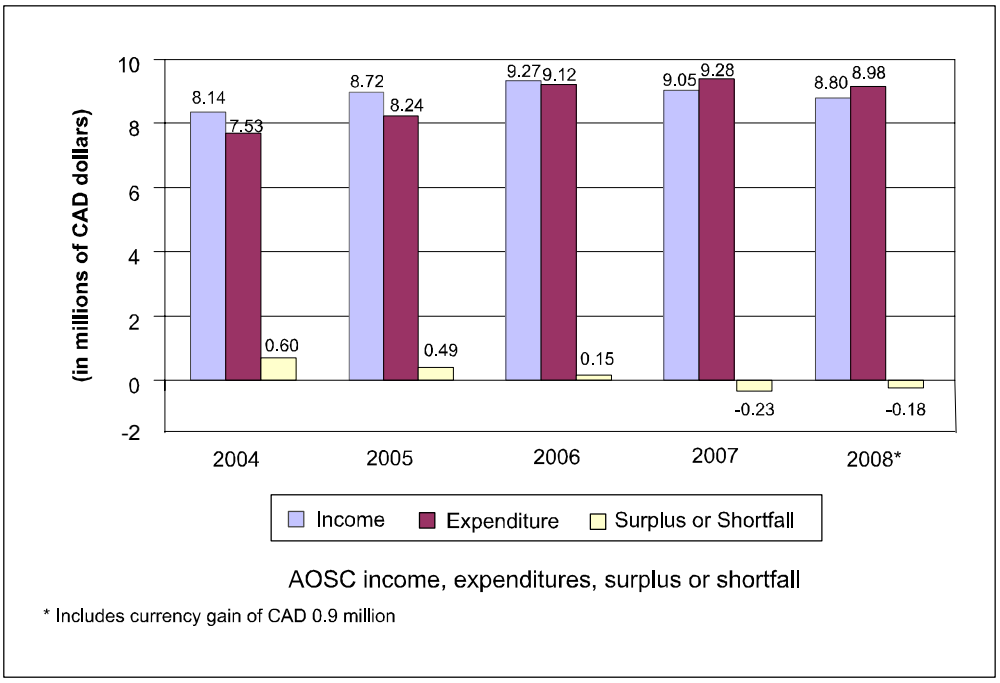
ICAO does not provide funding from its regular sources for its Technical Cooperation Programme; it is funded by extra-budgetary resources provided by donors or governments to fund their own projects. Administrative charges are levied for the execution of projects on the basis of the cost recovery principle. Funds received for such charges are administered by the Secretary General under the applicable provisions of the Financial Regulations and through the Administrative and Operational Services Cost (AOSC) Fund. The AOSC Fund is utilized to meet the full cost of the administration, operation and support of the Technical Cooperation Programme. It covers expenditures within TCB, such as staff costs, general operating expenses and equipment. Regular Programme expenditures for services provided to the Technical Cooperation Programme are also recovered from the AOSC Fund. On the basis of Terms of Reference approved by Council, an outside consultancy was hired to conduct a study to propose options for a new harmonized policy on cost recovery of indirect costs applicable to all extra-budgetary activities of the Organization, including the Technical Cooperation Programme. The study was initiated in December 2008.

The AOSC Budget estimates approved by the Assembly are indicative only because the Programme cannot be determined with precision until governments and donors have decided on the amounts to be allocated to civil aviation projects.

In 2008, the Canadian dollar was adopted as the base currency for the budgets and accounts of the proprietary funds of the Organization, including the AOSC

Fund. However, funds administered on behalf of third parties such as those established to manage technical cooperation projects are recorded in U.S. dollars.

In order to ensure comparability, the figures in the table below for the years 2004 to 2007 were reinstated in Canadian dollars.



AOSC income, expenditures, surplus or shortfall

* Includes currency gain of CAD 0.9 million

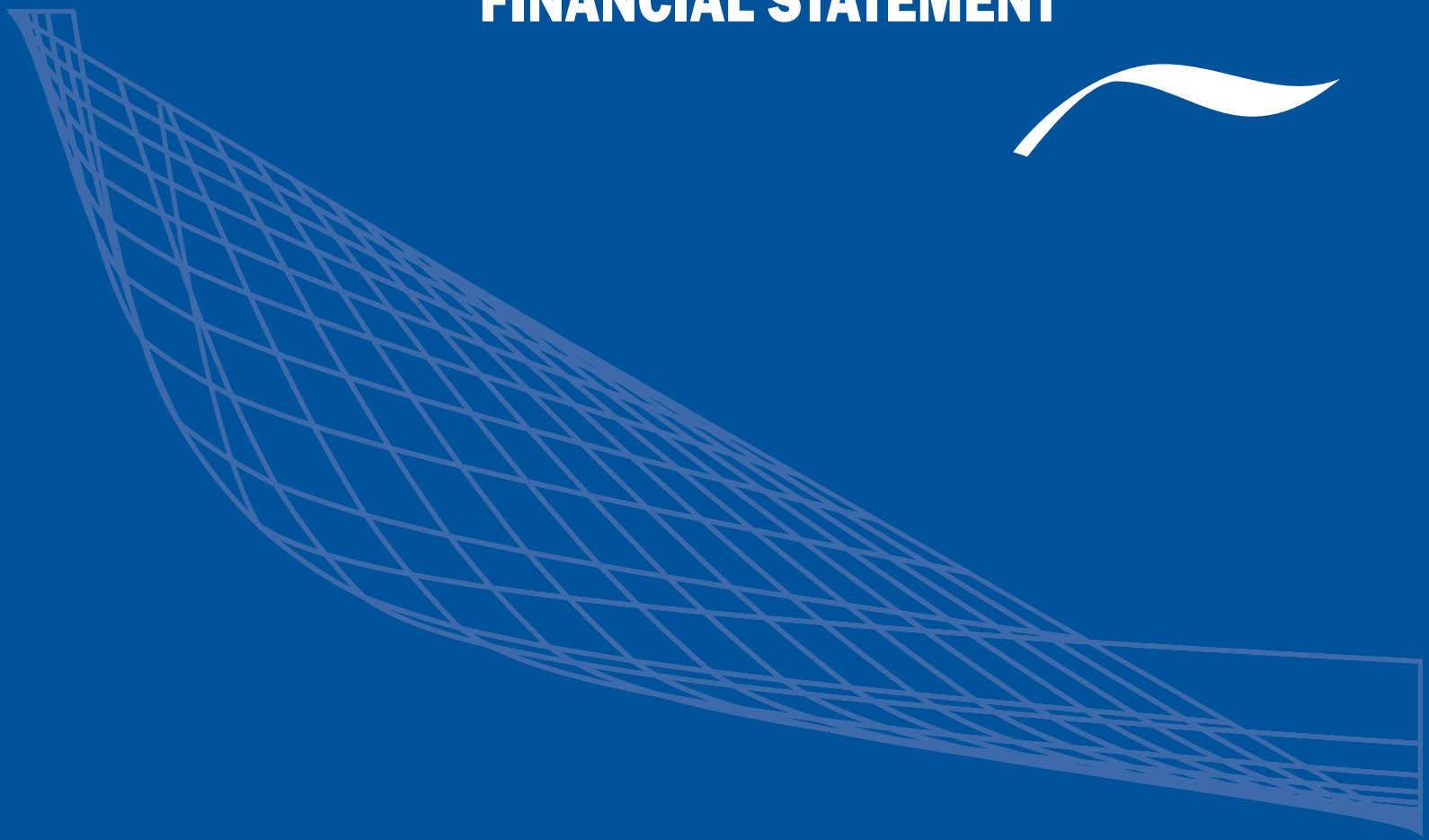
AOSC income, expenditures, surplus or shortfall

Annual AOSC surpluses or deficits are the result of the excess or shortfall of income over expenditures for a given year. The accumulated AOSC surplus as at 31 December 2008 is estimated at CAD 5.5 million. These funds serve as a reserve to cover possible deficits in Programme operations as well as to pay, if necessary, termination indemnities to staff, the latter amounting to approximately CAD 4.5 million at 31 December 2008.

Estimated results of operations show a deficit of CAD 182 000 in 2008. Average overhead rate charged to projects over the past five years decreased from 5.2% in 2004 to 4.2% in 2008.

Detailed information on projects implemented in 2008 can be found on the Annual Report website.

FINANCIAL STATEMENT



FINANCIAL STATEMENT

The budget appropriations for 2008-2009-2010 and the financing of the appropriations, as approved by the Assembly, are shown in Table 1:

Table 1. Appropriations for 2008, 2009 and 2010

	2008 CAD	2009 CAD	2010 CAD
Appropriations	79 951 000	80 085 000	85 507 000
To be financed by:			
Assessments	74 184 000	74 060 000	79 204 000
Miscellaneous Income	1 916 000	1 917 000	1 917 000
Ancillary Revenue Generation Fund Surplus	3 851 000	4 108 000	4 386 000

As shown in Table 2, the final appropriation for 2008 was adjusted to CAD69 577 000, as a result of:

i) the carry-over of 2007 appropriations to 2008 and the use of excess miscellaneous income from 2007 for a total of CAD9 137 000 in accordance with Financial Regulation 5.2 c), and Financial Regulation 5.11, C-DEC 182/13 and 184/8;

ii) the transfer of appropriations to other funds of CAD8 187 000 in accordance with C-DEC 182/13 and 184/8;

iii) the transfers between Strategic Objectives or Supporting Implementation Strategies in accordance with Financial Regulation 5.9 and C-DEC 186/8;

iv) the following adjustments for a total amount of CAD11 324 000 to decrease 2008 appropriations and to increase 2009 appropriations:

   a) the Outstanding Commitments in the amount of CAD1 167 000 in accordance with Financial Regulations 5.6 and 5.7;

   b) the Balance of Triennium Commitments in the amount of CAD4 195 000 as per Financial Regulation 5.6 and C-DEC 186/8;

c) the Deferred Activities in the amount of CAD1 975 000 in accordance with Financial Regulation 5.6; and

d) the carry-over of 2008 appropriations to 2009 in the amount of CAD3 987 000 as per Financial Regulation 5.6, C-DEC 186/8 and 186/12.

The actual expenditure for 2008 against the appropriation amounted to CAD69 577 000.

Assessments for 2008 on Contracting States amounted to CAD74 184 000. Assessments for 2008 actually received by the year's end amounted to CAD71 868 001, or 96.88% as compared with 97.67% at the end of 2007 and 84.28% at the end of 2006. In addition, CAD1 284 073 was received in respect of assessments for previous years. The total outstanding arrears of assessments as at 31 December 2008 amounted to CAD9 935 436.

Table 3 shows the financial position of the Organization, in terms of cash balances in the General and Working Capital funds, at the beginning of the year and at the end of each quarter, with the corresponding figures for 2007.

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

Enterprise resource planning

During 2008, the Integrated Resource Information System (IRIS) project, funded from the Information and Communication Technology (ICT) Fund, carried out the following major implementation activities:

1) Processing of transactions on the production system in Phase I modules, comprising of General Ledger, Accounts Payable, Accounts Receivable, Purchasing and Management of Projects, began as scheduled on 8 January 2008.

2) The IRIS team upgraded user support to address training gaps and difficulties with user acceptance of new procedures and roles. Dozens of staff members were trained in the new system, dozens of queries were addressed via telephone and email, and additional one-on-one training and assistance was provided. In addition, a new IRIS/Agresso Reference website was made available through ICAO's Intranet where training materials, including guides, manuals and instructional video clips on different Agresso procedures can be found. Additional training on the Agresso system and its querying and reporting capabilities was also arranged for mid-level managers in the Finance (FIN) Branch and TCB.

Table 2. Revised appropriations for 2008

Strategic Objective / Supporting Implementation Strategy	Appropriations: Original Assembly Resolution A36-29 CAD	Carry-over and miscellaneous income from prior year CAD	Decrease of appropriations CAD	Transfers among SO/SIS CAD	Adjustments CAD	Revised CAD	Actual expenditures CAD
Strategic Objectives (SO)							
A – Safety	14 415 000	1 921 000	–1 374 000	716 000	–1 770 000	13 908 000	13 908 000
B – Security	5 019 000	–	–	–1 506 000	–62 000	3 451 000	3 451 000
C – Environmental protection	1 674 000	589 000	–589 000	–67 000	–294 000	1 313 000	1 313 000
D – Efficiency	20 640 000	196 000	–	131 000	–637 000	20 330 000	20 330 000
E – Continuity	1 951 000	–	–	–307 000	–27 000	1 617 000	1 617 000
F – Rule of Law	607 000	–	–	495 000	–358 000	744 000	744 000
Subtotal strategic objectives	44 306 000	2 706 000	–1 963 000	–538 000	–3 148 000	41 363 000	41 363 000
Supporting Implementation Strategies (SIS)							
Management and administration	18 670 000	2 549 000	–981 000	987 000	–5 070 000	16 155 000	16 155 000
Programme support	14 086 000	3 882 000	–1 373 000	–530 000	–3 106 000	12 959 000	12 959 000
Subtotal supporting implementation strategies	32 756 000	6 431 000	–2 354 000	457 000	–8 176 000	29 114 000	29 114 000
Total	77 062 000	9 137 000	–4 317 000	–81 000	–11 324 000	70 477 000	70 477 000
Organizational realignment	2 889 000	–	–2 889 000	–	–	0	–
Reimbursement of Loan for TSSF	–	–	–981 000	981 000	–	0	–
Exchange gains/losses – GAIN	–	–	–	–900 000	–	–900 000	–900 000
Total	79 951 000	9 137 000	–8 187 000	0	–11 324 000	69 577 000	69 577 000

Table 3. Financial position (cash balance) of the Organization

As at	2008: General Fund CAD	2008: Working Capital Fund CAD	2008: Total CAD	2007: General Fund USD	2007: Working Capital Fund USD	2007: Total USD
1 January	24 651 730	5 887 510	30 539 240	11 999 500	5 996 859	17 996 359
31 March	21 922 338	5 837 479	27 759 817	20 833 052	5 996 859	26 829 911
30 June	21 771 447	5 939 307	27 710 754	16 217 554	5 996 859	22 214 413
30 September	11 886 009	5 974 031	17 860 040	15 648 820	6 001 539	21 650 359
31 December	19 483 148	7 265 360	26 748 508	25 129 185	6 001 539	31 121 734

3) All functionalities, re-scheduled for delivery after the start of production activities in January 2008, were completed and delivered throughout the year except for the automatic Budget and Funds Checking. This function resulted in having levels of complexity much higher than anticipated by Agresso, causing delays in its delivery. To mitigate the impact of this delay, changes were introduced to the procure-to-pay workflow process to automatically send requests through the corresponding budget offices for manual verification of funds.

While Phase I implementation was being completed, activities in Phase II started in February 2008 with the analysis and design sessions for the remaining modules, namely: Human Resources (HR)/Payroll, Fixed Assets, Sales, Travel and Budget Planner. System configuration based on the results of the analysis and design sessions began by mid-2008 and testing commenced in November with the review of the first delivery of the HR/Payroll module. Testing will continue through the first quarter of 2009 for all modules at different dates/periods depending on the development stage of each module. It is expected that the new HR/Payroll module will run in parallel with the legacy HR/Payroll system from January to March 2009 and that production activities of this module will commence in April 2009. It is also expected that testing and the start of production activities of the other modules will also take place in the same period but at different stages depending on the development stage of each module.

Adoption of International Public Sector Accounting Standards (IPSAS)

The United Nations (UN) and the UN System's Chief Executive Board (CEB) have approved the replacement of the United Nations System Accounting Standards (UNSAS) with IPSAS to be applied to the accounts and the financial statements on or before 1 January 2010. The ICAO Council reported to the 36th Session of the Assembly that IPSAS would be implemented by the Organization gradually during the next triennium (2008-2010) in order to be in line with other United Nations organizations.

The implementation of IPSAS will have a significant impact on the content and presentation of the Organization's financial statements. The accounting principles will change from the cash and commitment basis of accounting to the full accrual basis. With the adoption of IPSAS, major changes will be made to the financial statements and the accounts. These changes will include the recognition of additional assets on the face of the financial statements, such as equipment; and additional liabilities, such as after service benefits payable to employees.

UNSAS allow organizations to gradually adopt IPSAS by 2010. An organization is deemed to comply with UNSAS so long as the organization complies with the IPSAS individual standard(s) in its entirety and all remaining UNSAS requirements. This means that ICAO can gradually implement specific IPSAS standards and still be in compliance with UNSAS by 1 January 2010.

IPSAS is being implemented at ICAO at the pace of development of, and based on, the guidance provided by the UN CEB Task Force on accounting standards. It should be noted that, for efficiency purposes, the Enterprise Resource Planning (ERP) system presently being deployed at ICAO is aligned with IPSAS.

Evaluations and audits

During 2008, the Office for Programmes Evaluation, Audit and Management Review (EAO) completed an evaluation of staff contracts, and carried out audits on the use of official cell phones, the Ancillary Revenue Generation Fund (ARGF), education grants and the European Civil Aviation Conference (ECAC) financial statements. EAO also opened sealed tenders and acted as the focal point for liaison with the Joint Inspection Unit (JIU) of the United Nations system by following up on the status of recommendations made in JIU reports, as well as on recommendations made in the reports of the External Auditor.

The Council Working Group on Efficiency and EAO provided administrative support to, and facilitated the work of, the new ICAO Advisory Group on Evaluation and Audit (AGEA), which began its work in 2008.

APPENDIX 1. TABLES RELATING TO THE WORLD OF AIR TRANSPORT IN 2008

General Note.— The statistical data for 2008 appearing in this Report are to be considered as preliminary: experience shows that the margin of error for world totals is probably less than 2 per cent, except in the case of profit margins where it may be considerably higher. Unless otherwise noted:

a) all statistical data are applicable to ICAO Contracting States;

b) traffic statistics are for revenue scheduled services;

c) the expression “tonne-kilometre” means metric tonne-kilometre;

d) total airline financial statistics relate to non-scheduled as well as scheduled operations of scheduled airlines.

Table 1. World total revenue traffic — international and domestic
(scheduled services of airlines of ICAO Contracting States, 1999–2008)

Year	Passengers		Passenger-km		Freight tonnes		Freight tonne-km performed		Mail tonne-km performed		Total tonne-km performed	
	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %
1999	1 562	6.2	2 797 800	6.5	28.1	6.0	108 660	6.7	5 720	–0.7	370 420	6.3
2000	1 672	7.0	3 037 530	8.6	30.4	8.2	118 080	8.7	6 050	5.8	403 960	9.1
2001	1 640	–1.9	2 949 550	–2.9	28.8	–5.3	110 800	–6.2	5 310	–12.2	388 150	–3.9
2002	1 639	–0.1	2 964 530	0.5	31.4	9.0	119 840	8.2	4 570	–13.9	397 120	2.3
2003[1]	1 691	3.2	3 019 100	1.8	33.5	6.7	125 760	4.9	4 530	–0.9	407 670	2.7
2004	1 888	11.6	3 445 300	14.1	36.7	9.6	139 040	10.6	4 580	1.1	458 910	12.6
2005	2 022	7.1	3 721 690	8.0	37.6	2.5	142 520	2.5	4 660	1.7	487 860	6.3
2006	2 124	5.0	3 938 770	5.8	39.8	5.9	151 230	6.1	4 530	–2.8	516 700	5.9
2007	2 281	7.4	4 228 330	7.4	41.8	5.0	158 280	4.7	4 500	–0.7	546 670	5.8
2008	2 271	–0.4	4 282 870	1.3	40.5	–3.1	156 310	–1.2	4 790	6.4	549 730	0.6

1. On 1 October 2002, the United States Department of Transportation implemented new air traffic data reporting rules which, inter alia, have affected the reporting of domestic all-cargo operations. Consequently, compared with 2002, the reported data for the United States for 2003 shows a significant shift of domestic freight traffic from non-scheduled operations to scheduled services with a corresponding impact on the world traffic shown above. It is estimated that if the traffic for United States carriers had been reported under the old rules, the increases for freight tonnes carried (6.7 per cent), freight tonne-kilometres (4.9 per cent) and total tonne-kilometres performed (2.7 per cent) would have been reduced to 2.4, 2.7 and 1.6 per cent, respectively.

Source.— ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States.

Table 2. World revenue traffic — international
(scheduled services of airlines of ICAO Contracting States, 1999–2008)

Year	Passengers		Passenger-km		Freight tonnes		Freight tonne-km performed		Mail tonne-km performed		Total tonne-km performed	
	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %
1999	493	7.6	1 622 250	7.3	17.3	9.5	93 280	7.2	2 480	0.0	247 610	7.0
2000	542	9.9	1 790 370	10.4	18.8	8.7	101 560	8.9	2 670	7.7	273 090	10.3
2001	536	–1.1	1 726 580	–3.6	18.0	–4.3	95 950	–5.5	2 660	–0.4	261 030	–4.4
2002	547	2.1	1 736 070	0.5	18.8	4.4	101 590	5.9	2 710	1.9	267 170	2.4
2003	561	2.6	1 738 510	0.1	19.6	4.3	103 130	1.5	2 710	0.0	268 420	0.5
2004	647	15.3	2 015 070	15.9	21.8	11.2	115 120	11.6	2 830	4.4	304 920	13.6
2005	705	9.0	2 199 940	9.2	22.6	3.7	118 440	2.9	2 980	5.3	325 450	6.7
2006	761	7.9	2 365 010	7.5	23.9	5.8	125 700	6.1	3 040	2.0	348 080	7.0
2007	836	9.9	2 551 910	7.9	25.2	5.4	132 140	5.1	3 190	4.9	369 480	6.1
2008	866	3.6	2 639 090	3.4	25.0	–0.8	130 890	–0.9	3 360	5.3	376 330	1.9

Source.— ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States.

Table 3. Trends in load factors on scheduled services — international and domestic
(scheduled services of airlines of ICAO Contracting States, 1999–2008)

Year	Passenger-km (millions)	Seat-km available (millions)	Passenger load factor %	Freight tonne-km (millions)	Mail tonne-km (millions)	Total tonne-km performed (millions)	Total tonne-km available (millions)	Weight load factor %
1999	2 797 800	4 050 780	69	108 660	5 720	370 420	614 460	60
2000	3 037 530	4 286 200	71	118 080	6 050	403 960	656 880	61
2001	2 949 550	4 271 860	69	110 800	5 310	388 150	660 000	59
2002	2 964 530	4 167 110	71	119 840	4 570	397 120	654 180	61
2003	3 019 100	4 227 860	71	125 760	4 530	407 670	673 460	61
2004	3 445 300	4 704 730	73	139 040	4 580	458 910	738 750	62
2005	3 721 690	4 975 910	75	142 520	4 660	487 860	780 560	63
2006	3 938 770	5 198 910	76	151 230	4 530	516 700	816 880	63
2007	4 228 330	5 512 580	77	158 280	4 500	546 670	863 140	63
2008	4 282 870	5 654 340	76	156 310	4 790	549 730	875 210	63

Source.— ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States.

Table 4. Regional distribution of scheduled traffic — 2008

By ICAO statistical region of airline registration	Aircraft kilometres (millions)	Aircraft departures (thousands)	Passengers carried (thousands)	Passenger-kilometres performed (millions)	Passenger load factor (%)	Tonne-kilometres performed Freight (millions)	Tonne-kilometres performed Total (millions)	Tonne-kilometres available (millions)	Weight load factor (%)
Total (international and domestic) services of airlines of ICAO Contracting States									
Europe	9 426	7 569	649 090	1 220 991	76	41 064	152 374	228 777	67
Percentage of world traffic	27.3	28.8	28.6	28.5		26.3	27.7	26.1	
Africa	890	558	47 015	103 285	67	2 127	12 027	21 904	55
Percentage of world traffic	2.6	2.1	2.1	2.4		1.4	2.2	2.5	
Middle East	1 366	667	81 744	233 469	74	11 139	33 181	55 598	60
Percentage of world traffic	4.0	2.5	3.6	5.5		7.1	6.0	6.4	
Asia and Pacific	7 888	5 395	604 099	1 149 693	73	56 004	161 423	256 399	63
Percentage of world traffic	22.9	20.6	26.6	26.8		35.8	29.4	29.3	
North America	13 017	10 255	755 498	1 385 766	80	40 702	168 887	274 474	62
Percentage of world traffic	37.8	39.1	33.3	32.4		26.0	30.7	31.4	
Latin America and Caribbean	1 881	1 801	133 678	189 665	69	5 272	21 844	38 057	57
Percentage of world traffic	5.5	6.9	5.9	4.4		3.4	4.0	4.3	
Total	**34 469**	**26 245**	**2 271 123**	**4 282 870**	**76**	**156 309**	**549 735**	**875 209**	**63**
International services of airlines of ICAO Contracting States									
Europe	7 696	4 727	461 441	1 075 363	77	40 038	138 369	206 191	67
Percentage of world traffic	43.3	57.7	53.3	40.7		30.6	36.8	34.9	
Africa	712	314	28 473	89 339	66	2 031	10 643	19 811	54
Percentage of world traffic	4.0	3.8	3.3	3.4		1.6	2.8	3.3	
Middle East	1 220	449	61 475	217 881	74	11 048	31 696	53 127	60
Percentage of world traffic	6.9	5.5	7.1	8.3		8.4	8.4	9.0	
Asia and Pacific	4 019	1 189	172 870	696 917	73	50 127	115 976	179 873	64
Percentage of world traffic	22.6	14.5	20.0	26.4		38.3	30.8	30.4	
North America	3 147	1 057	104 779	453 701	80	23 511	65 807	108 693	61
Percentage of world traffic	17.7	12.9	12.1	17.2		18.0	17.5	18.4	
Latin America and Caribbean	976	461	36 353	105 887	71	4 131	13 842	23 850	58
Percentage of world traffic	5.5	5.6	4.2	4.0		3.2	3.7	4.0	
Total	**17 769**	**8 197**	**865 391**	**2 639 088**	**75**	**130 886**	**376 333**	**591 544**	**64**

Note.— The sum of the individual regions may not match the totals due to rounding.

Source.— ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States.

Table 5. Estimated international non-scheduled revenue passenger traffic, 1999–2008

Category	Millions of passenger-kilometres performed									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Non-scheduled traffic[1]	238 380	265 460	272 790	244 930	240 720	266 590	262 560	245 105	241 680	226 390
Annual change(%)	–7.3	11.4	2.8	–10.2	–1.7	10.7	–1.5	–6.6	–1.4	–6.3
Scheduled traffic	1 622 250	1 790 370	1 726 580	1 736 070	1 738 510	2 015 070	2 199 940	2 365 010	2 551 910	2 639 090
Annual change(%)	7.3	10.4	–3.6	0.5	0.1	15.9	9.2	7.5	7.9	3.4
Total traffic	1 860 630	2 055 830	1 999 370	1 981 000	1 979 230	2 281 660	2 462 500	2 610 115	2 793 590	2 865 480
Annual change(%)	5.2	10.5	–2.7	–0.9	–0.1	15.3	7.9	6.0	7.0	2.6
Non-scheduled traffic as percentage of total	12.8	12.9	13.6	12.4	12.2	11.7	10.7	9.4	8.7	7.9

1. Covers the non-scheduled traffic of scheduled airlines and non-scheduled operators.

Source.— ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States.

Table 6. Accidents of aircraft with a certificated maximum take-off mass of more than 2 250 kg involving passenger fatalities on scheduled air services 1989 – 2008

Year	Aircraft accidents	Passengers killed	Passenger fatalities per 100 million		Fatal accidents per 100 million		Fatal accidents per 100 000	
			Passenger-km	Passenger-miles	km flown	miles flown	aircraft hours	aircraft landings
Excluding the USSR up to 1992 and the Commonwealth of Independent States thereafter.								
1989	29	879	0.06	0.09	0.22	0.36	0.13	0.21
1990	25	561	0.04	0.06	0.18	0.29	0.11	0.17
1991	23	517	0.03	0.05	0.16	0.27	0.11	0.16
1992	24	972	0.05	0.09	0.16	0.26	0.10	0.17
1993	32	883	0.04	0.08	0.21	0.33	0.13	0.22
1994	23	957	0.05	0.08	0.14	0.22	0.09	0.14
1995	19	528	0.02	0.04	0.10	0.17	0.07	0.11
1996	21	1 152	0.05	0.08	0.11	0.18	0.07	0.12
1997	24	859	0.03	0.05	0.12	0.19	0.07	0.13
1998	19	856	0.03	0.06	0.10	0.14	0.06	0.10
1999	18	288	0.01	0.02	0.09	0.14	0.06	0.10
2000	18	755	0.02	0.04	0.08	0.12	0.05	0.09
2001	11	441	0.01	0.02	0.05	0.07	0.03	0.05
2002	10	653	0.03	0.03	0.05	0.07	0.02	0.05
2003	7	466	0.02	0.03	0.03	0.05	0.02	0.03
2004	8	175	0.01	0.01	0.03	0.05	0.02	0.04
2005	16	694	0.02	0.03	0.06	0.09	0.04	0.07
2006	8	365	0.01	0.02	0.03	0.05	0.02	0.04
2007	10	581	0.01	0.02	0.03	0.05	0.02	0.04
2008	10	308	0.01	0.01	0.03	0.05	0.02	0.04
Including the USSR up to 1992 and the Commonwealth of Independent States thereafter.								
1989	29	879	0.05	0.08	na	na	na	na
1990	29	632	0.03	0.06	na	na	na	na
1991	28	637	0.03	0.06	na	na	na	na
1992	28	1 070	0.06	0.09	na	na	na	na
1993	34	941	0.04	0.08	0.21	0.33	0.12	0.22
1994	27	1 166	0.05	0.09	0.15	0.25	0.10	0.16
1995	24	698	0.03	0.05	0.12	0.20	0.08	0.13
1996	24	1 173	0.05	0.07	0.12	0.19	0.08	0.13
1997	24	911	0.04	0.06	0.12	0.19	0.07	0.13
1998	19	856	0.03	0.05	0.09	0.14	0.06	0.10
1999	19	290	0.01	0.02	0.09	0.14	0.06	0.10
2000	18	757	0.03	0.04	0.07	0.12	0.05	0.08
2001	13	579	0.02	0.03	0.05	0.08	0.03	0.06
2002	11	667	0.02	0.03	0.05	0.07	0.03	0.06
2003	7	466	0.02	0.02	0.03	0.05	0.02	0.03
2004	9	207	0.01	0.01	0.03	0.05	0.02	0.04
2005	17	712	0.02	0.03	0.06	0.09	0.04	0.07
2006	12	751	0.02	0.03	0.04	0.06	0.02	0.05
2007	11	587	0.01	0.02	0.03	0.05	0.02	0.04
2008	12	455	0.01	0.02	0.04	0.06	0.02	0.05

Source.— ICAO accident/incident report programme (ADREP) and ICAO Air Transport Reporting Form A (Traffic).

Table 7. Aviation security

Year	Number of acts of unlawful interference	Number of acts of unlawful seizure: Actual seizures	Number of acts of unlawful seizure: Attempted seizures	Number of acts of facility attack: Actual facility attacks	Number of acts of facility attack: Attempted facility attacks	Number of acts of sabotage	Other acts[1]	Number of persons injured or killed during acts of unlawful interference: Injured	Number of persons injured or killed during acts of unlawful interference: Killed
1988	12	7	3	0	0	2	–	21	300
1989	14	8	4	0	0	2	–	38	278
1990	36	20	12	1	0	1	2	145	137
1991	15	7	5	1	0	0	2	2	7
1992	10	6	2	1	0	0	1	123	10
1993	48	30	7	3	0	0	8	38	112
1994	43	22	5	4	0	2	10	57	51
1995	17	9	3	2	0	0	3	5	2
1996	22	3	12	4	0	0	3	159	134
1997	15	6	5	2	0	1	1	2	4
1998	17	11	2	1	0	0	3	1	41
1999	14	11	2	0	0	0	1	3	4
2000	30	12	8	1	0	0	9	50	58
2001[2]	24	7	2	7	4	1	3	3 217	3 525
2002	40	2	8	24	2	2	2	14	186
2003	35	3	5	10	0	5	12	77	20
2004	16	1	4	2	2	4	3	8	91
2005	6	2	0	2	0	0	2	60	3
2006	17	1	3	4	0	1	8[3]	27	2
2007	22	4	2	2	3	0	11	33	18
2008	23	1	6	3	0	0	13[3]	31	11

1. Includes in-flight attacks and other acts of unlawful interference.
2. Official reports on the events of 11 September 2001 in the United States did not include the number of deaths and injuries on the ground. Therefore, estimated totals were taken from media sources.
3. Includes attempted sabotage.

APPENDIX 2. TECHNICAL COOPERATION PROJECTS

COUNTRY/REGION LISTINGS

AFGHANISTAN

Implementation of Kabul International Airport Transition Plan

Project goal

The objective of this project, which is funded by the Government of Afghanistan, is to enhance the capability of the Ministry of Transport and Civil Aviation (MOTCA) to enable MOTCA to take over responsibility for the management, operation and maintenance of those facilities and services at Kabul International Airport which will be transferred from the North Atlantic Treaty Organization (NATO)/International Security Assistance Force (ISAF) at the end of the transitional period covered by the project. This project was initiated in 2007 for an expected duration of 30 months.

Project achievements

The project is nearly fully staffed. Some delays in recruitment were experienced when funding was delayed by five months. Several experts, who left the project for various reasons, are being replaced. ICAO and MOTCA continued to implement the project in a coordinated and timely manner, in cooperation with military units involved in airport and airspace, which are facilitating the project activities and thus the achievement of its objectives. In order to ensure the availability of suitably qualified counterparts to be assigned to the international experts, Afghans continued to be trained in the Civil Aviation Training Centre at Kabul and to receive on-the-job training by ICAO operational assistance (OPAS) personnel in air traffic control, fire and rescue, meteorology and other aspects of airport operations. In addition, candidates are being selected for more advanced training expected to take place in 2009.

Flight Safety Oversight

Project goal

The objective of this project, which is funded by the Government of Afghanistan, is to enhance the flight safety oversight capability of the Ministry of Transport and Civil Aviation (MOTCA). This project commenced operations in September 2008 for a planned duration of 12 months.

Project achievements

The project, which is to provide the services of three experts, is in the early stages of its planned activities. The Flight Operations Inspector/Team Leader arrived in Kabul at the end of September 2008 and the Airworthiness Inspector arrived at the end of November 2008. The second Flight Operations Inspector is due to arrive in early 2009.

ARGENTINA

Modernization of the CNS/ATM Systems and Strengthening of the "Comando de Regiones Aéreas (CRA)"

Project goal

The objective of this project, funded by the Government of Argentina, is to modernize communications, navigation and surveillance (CNS) systems which provide the infrastructure for national and regional air navigation. The project aims to support safety oversight and forecast the social, economic and cultural development of civil aviation. This project, which began in September 2004 with an expected duration of two years, has been extended until October 2010.

Project achievements

Project activities included the hiring of 518 personnel for the Comando de Regiones Aéreas (CRA) and the acquisition of equipment.

Establishment of a New National Civil Aviation Administration

Project goal

The objective of this project, funded by the Government of Argentina, is to create a new entity responsible for the provision of airport and air navigation services and safety oversight, including the transfer of all missions and duties performed by the "Comando de Regiones Aéreas de la Fuerza Aérea Argentina". The project, which began in September 2007, has an expected duration of 36 months.

Project achievements

A working plan was prepared to transfer the responsibilities and authority to a new civil entity. More than 400 aerodromes were placed under the responsibility of the new authorities and new processes for renting building premises to accommodate more than 500 employees was initiated. Consultants were hired to develop new legislation on civil aviation as well as technical and administrative

manuals and procedures. Electronic office equipment was acquired to develop an automatic management system.

BOLIVIA

Safety Oversight and Air Navigation

Project goal

The objective of this project, funded by the Government of Bolivia, is to enable the Directorate General of Civil Aviation (DGCA) to continue to efficiently perform its safety oversight activities by strengthening the Air Navigation Unit and the National Institute of Civil Aviation (INAC). The project began in 2004 with an expected duration of five years.

Project achievements

Training courses, seminars and workshops related to personnel licences, operations, airworthiness, air navigation, aviation security, facilitation, management, legal matters and computer science were conducted. Strengthening of INAC was achieved through an increase in human resources (184 national personnel were contracted), improved infrastructure and more modern equipment. The construction of a new building in Cochabamba will provide suitable training facilities for future TRAINAIR certification. Civil Aviation Authorities participated in meetings with regional bodies such as the Latin American Civil Aviation Commission (LACAC) and the Andean Committee of Aeronautical Authorities. The DGCA technical libraries were strengthened through the implementation of guidance provided in the Institutional Technical Information System Manual published by the DGCA.

BOTSWANA

Assistance in the Establishment of a Civil Aviation Authority for Botswana

Project goal

The objective of this project, funded by the Government of Botswana, is to establish an autonomous, efficient and effective civil aviation structure that responds to both the dynamics of the aviation industry and the country's social and economic development, while promoting trade and tourism. This project began in 2005 with an expected duration of 18 months and was extended through 2009.

Project achievements

Replaced existing aviation legislation, in particular the Consolidated Civil Aviation Act of 2008 and the Aviation Security Act 2008, together with corresponding regulations. This new legislation was accepted and sent for approval to the National Assembly. The Civil Aviation Authority's Organigramme and Terms and Conditions of Service Regulations were approved by the Board of Authority. The Civil Aviation Authority's Chief Executive Officer was appointed with effect from 1 April 2001; the Corporate Secretary, Director of Airports, Director of Air Navigation Services, Director of Finance and Director of Human Capital and Administration were also appointed. Steps were taken to recruit Directors for Flight Safety and Air Transport at the behest of the Civil Aviation Authority. Requests were made for the provision of an Air Transport Economist and a Telecommunications Expert to assist in the preparation of a comprehensive civil aviation master plan. The five-year draft master plan has been completed and an Agreement was reached to second the workforce of the Department of Civil Aviation to the Civil Aviation Authority (CAA). In addition, a suitable location was identified for the new CAA Headquarters.

BRAZIL

Civil Aviation Professional Qualification and Research

Project goal

The objective of this project, which is funded by the Government of Brazil, is to enhance the professional qualifications and research capabilities of staff of the Brazilian civil aviation system through the provision of technical support, human resources, equipment and training to the National Civil Aviation Agency (ANAC). The project, which began in July 2001 for an initial duration of five years, was extended until December 2009.

Project achievements

Training activities were carried out in the fields of language proficiency, airworthiness, TRAINAIR aspects, management, safety oversight, regulation, flight operations, aerodromes certification and rescue and firefighting. ANAC personnel participated in meetings, conferences and symposiums. A total of 50 international and 320 national missions were carried out, most of which were covered by fellowships programmes. A general plan to combat pandemic influenza in airports and a national programme for quality control of facilitation were presented to the Latin American Civil Aviation Commission (LACAC). The Fourth Regional TRAINAIR Coordination Conference (RTCC/4) was held and a Seminar on Aviation and Environment — Climate Changes was organized. ICAO Standards and Recommended Practices (SARPs) training was provided to ANAC's internal auditors. Two courses on basic civil aviation and airport noise

were developed and implemented as distance learning courses. The Airport and Airspace Simulation Model (SIMMOD)™, a software which provides analysis of airports and an integrated system of the airports' operation, validated by the Federal Aviation Administration (FAA), was acquired.

CNS/ATM System Implementation

Project goal

The objective of this project, which is funded by the Government of Brazil, is to develop and implement the communications, navigation and surveillance/air traffic management (CNS/ATM) systems in accordance with the Caribbean/South American (CAR/SAM) Regional Air Navigation Plan and ICAO Standards and Recommended Practices (SARPs). This project began in 2001 for a planned duration of five years and was extended through 2009.

Project achievements

Satellite-based augmentation system (SBAS) tests to improve the performance of the global navigation satellite system (GNSS) signals were carried out; ground-based augmentation system (GBAS) studies on the ionosphere interferences were carried out by collecting data from in-flight operations and ground stations; evaluation tests were performed on the application of controller-pilot data link communications (CPDLC) and automatic dependent surveillance (ADS); implementation of required navigation performance 10 (RNP 10) and reduced vertical separation minimum (RVSM) in the European and South American (EUR/SAM) routes was completed; performance-based navigation (PBN) developments, which include area navigation (RNAV) progressed; and studies were conducted to develop and improve the aeronautical telecommunication network (ATN), including the development of an operational model — DATACOM System — for the transition process and use of geostatic satellites for communications and surveillance. The project also contracted 102 national professionals and supported the participation of the Department of Airspace Control (DECEA) personnel in meetings, seminars, and technical missions as part of the training objectives. Three regional events were sponsored by the project. A total of nine participants attended the Fifteenth Meeting of the Caribbean/South American (CAR/SAM) Regional Planning and Implementation Group (GREPECAS), the Forecasting and Economic Planning Workshop and the Seventh Meeting of the CAR/SAM Traffic Forecasting Group.

CAMBODIA

ICAO SARPs Compliance — Rattanakiri Airport

Project goal

The objective of this project, funded by the Asian Development Bank (ADB), is to review, monitor and report on the implementation of the Rattanakiri Airport Upgrading Project at predetermined milestones to ascertain compliance of the airport design with regard to relevant operational and safety Standards as prescribed by ICAO and other industry-wide accepted practices. This project began in December 2007 with an expected duration of 12 months.

Project achievements

An ICAO Aerodrome Architect expert was fielded in early 2008 for a period of one month to Phnom Penh and Rattanakiri. The expert's report was reviewed and finalized at ICAO Headquarters and submitted to the Government and the Asian Development Bank. The project was completed in 2008.

COSTA RICA

Master Plan for the Daniel Oduber International Airport in Liberia City

Project goal

The objective of this project, funded by the Central American Corporation for Air Navigation Services (COCESNA), is to develop a master plan to expand the capacity of the Daniel Oduber International Airport in order to qualify for higher dimension aeroplanes, as well as to meet the demands of the North Pacific Region with regard to wide economic, tourist and commercial development. This project, which began in March 2008 with an expected duration of six months, has been extended through December 2009.

Project achievements

The master plan was completed by the end of 2008 and will be discussed with the Government of Costa Rica in 2009 in order to consider an extension of the project.

Contingency Plan for Juan Santamaria International Airport

Project goal

The objective of this project, funded by the Government of Costa Rica, is to develop a plan to support regular operations as part of a contingency plan at Juan Santamaria International Airport, while ensuring there is no interruption of the international air traffic due to a Government dispute with the airport's concessionaires. It also included the transfer of a qualified team capable of managing the logistics of Juan Santamaria International Airport. This project began in March 2008 and was completed in July 2008.

Project achievements

The contingency plan was activated successfully during the negotiation process between the Government and the airport's concessionaires. A qualified team was transferred to the State in order to maintain sound airport operations.

Integral Plan for the Modernization of the National Aerodromes Network

Project goal

The objective of this project, funded by the Government of Costa Rica, is to develop a modern network of airports for new international and local air transport which includes implementation of a model for modernization of the main domestic aerodromes. Environmental impact studies and socio-economic analyses of previously determined tourist destinations are included in this model. The development of a master plan for the new international airport together with a second phase of airport construction is planned. This project, which began in March 2008 with an expected duration of six months, has been extended through December 2009.

Project achievements

The master plan for a new airport in the southern zone of the country was completed.

Integral Plan for the Modernization of the Directorate General of Civil Aviation (DGCA)

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), is to strengthen the aeronautical authorities. This project, which began in March 2008 with an expected duration of nine months, has been extended through December 2009.

Project achievements

Activities to amend the General Aviation Law and reorganize the structures of the regulatory body and the service provider were undertaken, as recommended by the Universal Safety Oversight Audit Programme (USOAP). The process for the recruitment of international experts was initiated.

DEMOCRATIC REPUBLIC OF THE CONGO

Airports/Airfields Rehabilitation Project

Project goal

The objective of this project, funded by the United Nations Department of Peacekeeping Operations (UNDPKO), is to enhance the aeronautical infrastructure and services at the 13 airports/airfields designated for use by the United Nations Organization Mission in the Democratic Republic of the Congo (MONUC), by providing technical guidance on the rehabilitation of its airports and by carrying out refresher training courses for air traffic controllers. This project, which began in 2003 with an initial duration of 18 months, has been extended through April 2009.

Project achievements

The runway length at Goma Airport was increased and, along with the apron asphalt, resurfaced to meet international safety Standards and allow for larger aircraft. Technical specifications were developed for the installation/certification of a precision approach path indicator (PAPI) system at Goma Airport. Runways, taxiways and aprons at Bunia and Bukavu airports were resurfaced. Area navigation (RNAV) and global navigation satellite system (GNSS) pilot training courses were offered to MONUC aircraft operators, Régie des Voies Aériennes (RVA) and Civil Aviation Authority (CAA) pilots with essential skills and the capability to fly RNAV procedures. A GNSS maintenance programme was completed based on the World Geodetic System of 1984 (WGS-84) to survey all relevant new obstacles in order to provide satellite-based waypoints. RNAV (GNSS) non-precision approaches (NPA) were published for all airports, as applicable. ICAO secured a building and air traffic control (ATC) workstations to establish a proper area control centre (ACC). New air traffic services operations manuals compliant with ICAO requirements were completed. A draft manual on search and rescue organization was completed and provided to authorities for approval. MONUC provided a temporary building at N'Dolo Airport for an ACC and ICAO identified the required ACC workstations.

DOMINICAN REPUBLIC

Improvement of Airports Regulation/Training on Airport Certification

Project goal

The objective of this project, funded by the Government of the Dominican Republic, is to provide technical cooperation to the Dominican Institute of Civil Aviation (IDAC) and to strengthen the Government's oversight capabilities in the areas of regulation, certification and safety management systems of airports. This project began in February 2008 and was completed in April 2008.

Project achievements

Two courses, which targeted airport specialists working as IDAC inspectors, were delivered by five international experts/instructors who specialized in regulation, certification and airport safety management systems. In addition, courses were given to operator personnel of private and concessioned airports.

TRAINAIR Programme for the Dominican Institute of Civil Aviation (IDAC)

Project goal

The objective of this project, funded by IDAC, is to upgrade and expand the capabilities of IDAC's methodological training system through the introduction of the ICAO TRAINAIR methodology in their training division. The project began in 2008 with a planned duration of one year.

Project achievements

The recruitment process was completed with IDAC in order to field a TRAINAIR expert at the beginning of 2009.

ECUADOR

Strengthening of the Civil Aviation Sector

Project goal

The objectives of this project, funded by the Government of Ecuador and the United Nations Development Programme (UNDP), are to develop a national air navigation plan in the context of a civil aviation development master plan; advise the Government on the establishment of a concession for the operation of existing and new airports in Quito and Guayaquil; redesign the organizational

structure of the Directorate General of Civil Aviation (DGCA); upgrade its human resource capabilities through staff training; and optimize the fulfilment of its safety oversight responsibilities. This project, which began in 1998 with an expected duration of nine years, was extended to December 2009.

Project achievements

National professional staff were recruited to provide support and control of professional services in the technical, administrative and operational fields, and were assigned to the airports of Quito and Guayaquil. Procurement activities included a two-year contract for radar maintenance, the implementation of the first phase of a very small aperture terminal (VSAT) network and the installation of San Cristobal's radar.

EGYPT

TRAINAIR Programme for EGYPTAIR

Project goal

The objective of this project, funded by EGYPTAIR, is to upgrade and expand the capabilities of the methodological training system of this airline through the introduction of the ICAO TRAINAIR methodology in their training division. The project, which began in 2006 with a planned duration of one year, has been extended until 2009.

Project achievements

The ICAO TRAINAIR Central Unit (TCU) granted the EGYPTAIR Training Centre (ETC) full membership in the TRAINAIR Programme in 2007. The qualified TRAINAIR Course Developers continue to use the TRAINAIR methodology for developing Standardized Training Packages (STPs) within the framework of this project. Also as part of the project, ETC hosted the Fourth Regional TRAINAIR Coordination Conference (RTCC/4) in October 2008, which was attended by 49 participants from 26 institutions in 24 States, as well as by five observers.

EQUATORIAL GUINEA

Reinforcement of National and Institutional Capacity in Civil Aviation

Project goal

The objectives of this project, funded by the Government of Equatorial Guinea and the United Nations Development Programme (UNDP), are to develop

comprehensive aeronautical regulations for Equatorial Guinea and to establish a unit for the inspection of operations and airworthiness of aircraft and for the licensing of aircraft and flight operations personnel. The project provides direct operational assistance in various fields, such as airline operations, aerodromes, navigation aids (NAVAIDS), maintenance and electrical engineering and training of civil aviation personnel. A master plan for the development of civil aviation is in preparation. This project, which began in 2004 with an expected duration of four years, has been extended through 2009.

Project achievements

The development of a Civil Aviation Law, which has yet to be passed in Parliament, was completed by a Legal Expert. A team of Flight Safety Inspectors (operational assistance (OPAS)) was deployed to assist the Civil Aviation Authority (CAA) in the establishment of a sustainable certification and surveillance system. This includes updating current regulations through the re-certification of air operators, revalidation of personnel licences, and the development and subsequent implementation of a training plan for national technical staff.

GUATEMALA

Expansion and Modernization of La Aurora Airport in Guatemala

Project goal

The objective of this project, funded by the Government of Guatemala, is to assist in the expansion and modernization of La Aurora International Airport, Guatemala City, and to ensure compliance with operational and security requirements in the national regulations, ICAO Standards and Recommended Practices (SARPs) and the regional air navigation plan. A project revision now includes the financing arrangements for the airport expansion. This project, which began in 2005 with an expected duration of two years, has been extended through 2008.

Project achievements

Measures were taken to guarantee airport safety in order to meet ICAO's SARPs, which included the purchase of a long-range radar and display system to cover the national territory.

Integral Modernization of the National Airports System

Project goal

The objective of this project, funded by the Government of Guatemala, is to assist in the planning and modernization of airport facilities and services at Cobán, Esquipulas, Huehuetenango, Puerto Barrios, Quetzaltenango and Retalhuleu domestic airports, in accordance with applicable international Standards. This project began in 2005, with an expected duration of one year, and has been extended through 2008.

Project achievements

Due to the reorientation of government priorities, implementation activities in 2008 were minimal and included only a design of Puerto Barrious Airport terminal building. Decisions on the continuation of the project for implementation are expected in 2009.

INDIA

ICAO-India Developing Country Training Programme

Project goal

The objective of this project, funded by the Airports Authority of India (AAI), is to assist the AAI with the administration of a programme to train participants from developing States at the National Institute of Aviation Management and Research (NIAMAR) in New Delhi, as selected by AAI. The assistance covers the distribution of related information to ICAO Contracting States and the issuance of letters of fellowship awards and letters of rejection. This project began in November 2008 with an expected duration of 12 months.

Project achievement

ICAO issued 12 fellowship awards to participants from 12 countries for two courses (Airport Certification and Airport Safety Management Systems) held at NIAMAR.

ICAO SARPs Compliance — Hyderabad International Airport

Project goal

The objective of this project, which is funded by Hyderabad International Airport Limited (HIAL), is to review the detailed designs of the airport's facilities and

equipment (excluding communications, navigation and surveillance/air traffic management (CNS/ATM) and aeronautical meteorological systems), and to ensure compliance with ICAO Standards and Recommended Practices (SARPs). Other objectives are to review the aerodrome manual to be developed by HIAL; to conduct an independent safety inspection of the completed facilities and equipment prior to submitting an application to the Directorate General of Civil Aviation of India to grant an aerodrome certificate; to review the safety management system; and to advise HIAL of any necessary rectification of deficiencies. The project commenced in January 2006 with a proposed duration of 27 months.

Project achievements

An ICAO airport engineer and an ICAO electro-mechanical engineer undertook missions to Hyderabad (GHIAL) Airport in 2008 to evaluate compliance with ICAO SARPs and Civil Aviation Requirements (CARs) of the aerodrome works already completed, particularly the aerodrome drainage systems, in preparation for certification of the airport by the Civil Aviation Authority of India.

Development/Modernization — Delhi International Airport

Project goal

The objective of this project, which is funded by Delhi International Airport Pvt. Ltd. (DIAL), is to assist in the technical review of the design, construction and installation of the airside facilities entrusted to the engineering, procurement and construction (EPC) contractor, with the primary focus on the verification of compliance with ICAO Standards and Recommended Practices (SARPs) of the facilities and equipment of DIAL. The project began in November 2007 with a proposed duration of 13 months.

Project achievements

A second team of five ICAO experts submitted a report in May 2008 on the review of documents that constitute the basis for the design and specifications of the airport expansion master plan. The design aspects covered included the proposed airport expansion layout, aerodrome drainage, aerodrome pavement and runway friction, aerodrome ground lighting, fuel hydrant system and rescue and firefighting services.

Navi Mumbai International Airport (NMIA) Plan/Detailed Project Report/ Preliminary Design Review

Project goal

The objective of this project, funded by the City and Industrial Development Corporation of Maharashtra Limited (CIDCO) and implemented under Trust Fund arrangements, is to ensure that the NMIA master plan, project report and preliminary designs/specifications conform to ICAO Standards and Recommended Practices (SARPs), relevant ICAO Annexes and guidance material, the Civil Aviation Requirements (CARs) issued by the Director General of Civil Aviation (DGCA) of India, and regulations issued by the Bureau of Civil Aviation Security (BCAS). The project commenced in August 2008 and has a proposed duration of six months.

Project achievements

A team of five ICAO experts in the fields of airport master planning, airport engineering, traffic forecasting and assessment, air traffic management and communications, navigation and surveillance, visited Navi Mumbai in August 2008 to review the reports prepared for the development of NMIA. These documents included project objectives, requirements and concepts as well as an inception report, air traffic profile, marketing feasibility, airport benchmarking, development strategy, institutional structure, planning principles, aviation demand forecast, aviation facility requirements and an alternative master plan concept. The team submitted a report which suggested revisions and amendments to ensure accuracy, the correct use of references and terminology in the documentation, and full compliance with ICAO SARPs and the DGCA of India.

IRAQ

Civil Aviation Master Plan (CAMP) for Iraq

Project goal

The objective of this project, funded by the United Nations Development Programme (UNDP), is to establish a sound basis for the rehabilitation and upgrading of the civil aviation sector in a safe, secure and efficient manner, consistent with international requirements, while enabling the country to meet its air transport demands, to contribute to economic and social development requirements and to promote trade and tourism. The project began in mid-2008 and has an estimated completion date of July 2009.

Project achievements

Five international experts were selected in 2008 as members of the CAMP team. Visits were undertaken to Baghdad, Basrah, Erbil, Najaf and Sulaimaniyah airports to collect data and draft parts of the CAMP.

MEXICO

Evaluation of the Air Navigation System in Mexico

Project goal

The objective of this project, funded by the Government of Mexico and executed through a Trust Fund Agreement, is to carry out an evaluation of the air navigation systems, which involves the Directorate General of Civil Aviation (DGCA) as the supervising entity and the Servicios a la Navegación en el Espacio Aereo Méxicano (SENEAM) as the air navigation services provider. The evaluation will be carried out in four area control centres and will cover the areas of aeronautical information services, air traffic management, communications, navigation and surveillance (CNS), service engineering, meteorology, onboard maintenance systems and safety management systems. This project, which began in July 2008 with an expected duration of two months, has been extended through December 2009.

Project achievements

A civil aviation consultant and an international project coordinator CNS expert elaborated the work plan. The selection process for recruitment of other international experts continued. A joint evaluation was carried out by work teams integrated with DGCA and SENEAM personnel, thus beginning their on-the-job training to act as future inspectors in accordance with the Universal Safety Oversight Audit Programme (USOAP) recommendations.

Basic and Advanced Courses in Safety

Project goal

The objective of this project, funded by the Government of Mexico, is to assist the DGCA in the training of officials by delivering "Condensed (Basic and Advanced) Safety Management Systems" courses based on ICAO Standards and Recommended Practices (SARPs) and on USOAP recommendations for the purpose of strengthening the national aeronautical system. This project, which began in June 2008 with an expected duration of one month, was extended to March 2009.

Project achievements

The selection of experts/instructors was concluded and it was agreed that courses would commence in early 2009. Logistical support related to the course facilities was coordinated.

Course on Airport Certification

Project goal

The objective of this project, funded by the Government of Mexico, is to assist the DGCA by providing training to airport personnel on airport certification with a view to strengthening the national aeronautical system. Project activities include courses on aerodromes, air routes and ground aids based on ICAO SARPs and USOAP recommendations to be delivered by international experts, including field work at selected airports. This project, which began in June 2008 with an expected duration of two months, was extended to March 2009.

Project achievements

The selection of experts/instructors was concluded and it was agreed that courses would commence in early 2009. Coordination took place between Mexican authorities and ICAO regarding logistical support related to the course facilities.

TRAINAIR Programme for the Aeropuertos y Servicios Auxiliares (ASA)

Project goal

The objective of this project, funded by the Aeropuertos y Servicios Auxiliares (ASA), Mexico, is to upgrade and expand the capabilities of the methodological training system of ASA through the introduction of the ICAO TRAINAIR methodology in its training division. The project began in April 2008 with a planned duration of one year.

Project achievements

The TRAINAIR expert delivered the Course Developers Workshop and provided on-the-job training to the trained course developers by supporting them in the preparation of a new Standardized Training Package (STP) which is nearing completion. In addition, the expert is coaching the course developers in the adaptation of an STP imported from the global TRAINAIR Sharing Pool.

NICARAGUA

Development of Airports in the Region Ruta del Agua

Project goal

The objective of this project, funded by the Government of Nicaragua and developed through funds from the Inter-American Development Bank (IDB), is to determine the location and construction of two new airports in the southern part of the country aimed at providing the region with an alternative to the fluvial transportation system, thereby stimulating, through ecotourism, the socio-economic development in the region. This project, which began in October 2008 with an expected duration of four months, was extended through December 2009.

Project achievements

Experts were mobilized to study the ground, airspace, topography, and any environmental and social impacts. As a result of the new airport design, the Government requested the development of a subsequent project aimed at the establishment of a national airport network based on a strategic plan for particular geographical areas.

OMAN

Civil Aviation Development and Technical Support

Project goal

The objective of this project, funded by the Government of Oman, is to provide ongoing support to the Directorate General of Civil Aviation and Meteorology in matters related to air traffic control, airport engineering, flight operations and airworthiness, and to contribute to the development of an efficient regulatory agency while encouraging a safe and economically viable air transportation system. This project, which began in 1993 with a planned duration of eight years, has been extended on an annual basis.

Project achievements

Extensions for this project have been requested by the DGCA in order to augment the Flight Operations Section which is experiencing staff shortages. Ongoing development of civil aviation regulations and procedures in compliance with ICAO Standards and Recommended Practices (SARPs) progressed.

PAKISTAN

Preparatory Assistance to Development of CATI Hyderabad

Project goal

The objective of this project, funded by the Pakistan Civil Aviation Authority (PCAA), is to provide a general assessment of the Hyderabad Civil Aviation Training Institute's (CATI) training facilities, programmes and personnel on the basis of ICAO requirements; latest technological developments in the field of civil aviation; and modern training methodologies and systems, so that an appropriate team of ICAO consultants specialized in the respective fields can be assigned to identify specific actions that need to be undertaken. This project had a duration of one month and was implemented in August 2008.

Project achievements

The ICAO civil aviation training consultant was fielded for two weeks to Hyderabad and Karachi. The consultant's report was reviewed and finalized at ICAO Headquarters and submitted to the Government.

Privatization of Airports

Project goal

The objective of this project, funded by the Pakistan Civil Aviation Authority (PCAA), is to provide assistance to the PCAA in the review of its policy on the privatization of airports. This project began in March 2008 with an expected duration of one month.

Project achievements

The ICAO airport privatization consultant was fielded for one month to Karachi. The consultant's report was reviewed and finalized at ICAO Headquarters and submitted to the Government. This project was completed in May 2008.

PANAMA

Strengthening of the Tocumen International Airport of Panama

Project goal

The objectives of this project, funded by Tocumen International Airport (AIT), are to assist the Government of Panama in the modernization of airport facilities,

including the management of projects for the expansion of the airport and the procurement of equipment necessary for its operation and to ensure that airport operations are carried out in accordance with ICAO Standards and Recommended Practices (SARPs). This project, which began in 2003 with an initial duration of one year, was extended through 2008.

Project achievements

Progress continued in the expansion and modernization of the Tocumen International Airport facilities, including the construction of a perimeter fence, tendering of equipment such as rescue vehicles, firefighting equipment, visual aid systems and runway lighting, as well as friction measurement equipment and rubber removal equipment. The maintenance services contract, which includes boarding gates, luggage conveyor belts and the acquisition of spare parts for equipment, was extended.

Restructuring of Civil Aviation and Human Resources Development

Project goal

The objective of this project, which is funded by the Government of Panama, is to strengthen the institutional capacity of the Civil Aviation Authority (CAA), as well as assist in the modernization of the air navigation infrastructure, in accordance with ICAO Standards and Recommended Practices (SARPs) and the Regional Air Navigation Plan. The project, which began in 1999 with an expected duration of five years, has been extended to 2008.

Project achievements

Project activities focused on institutional strengthening and personnel training, particularly in safety oversight and aviation security. A total of 43 personnel were contracted for the CAA of Panama. Several courses were organized in the areas of safety management systems, airport certification, safety inspection, aviation security (AVSEC) inspection, airport management, technical operations and the automation of the administration, simulator equipment maintenance, air navigation and airport tariffs, and air transport. A new radar system and two firefighting vehicles were purchased, and satellite communication services through the MEVA II VSAT network were initiated. Special efforts were also made to maintain Panama's high safety record.

PARAGUAY

Support of the National Directorate of Civil Aeronautics (DINAC)

Project goal

The objective of this United Nations Development Programme (UNDP) project of national execution, funded by the Government of Paraguay, is to strengthen the institutional capacity of the Directorate of Civil Aeronautics (DINAC) in order to provide air navigation services, as well as assist in the modernization of the air navigation infrastructure in accordance with ICAO Standards and Recommended Practices (SARPs) and the Regional Air Navigation Plan. This project, which began in 2004 with an expected duration of one year, has been extended through 2008.

Project achievements

Project activities focused on the modernization of aeronautical and airport facilities. VHF-AM band transceivers for air traffic and an air radio modem for weather stations were installed; major contracts for a runway lighting system at Silvio Pettirossi International Airport were completed; and English language courses for DINAC technical staff were conducted.

PERU

Institutional Strengthening of the DGCA — Phase II

Project goal

The objective of this project, funded by the Government of Peru, is to enable the Directorate General of Civil Aviation with the means to modernize and guarantee that technical and professional standards have been met and that activities are carried out in a suitable manner, so as to foster civil aviation and air transport as instruments of economic development. This project, which began in December 2007, has an expected duration of three years.

Project achievements

Training was provided to approximately 300 civil aviation personnel based on a national training plan covering the following areas: aerodromes, aviation security (AVSEC), dangerous goods, safety oversight, operations simulation, navigation simulators, quality assurance, licensing and management. A National Strategic Plan for Civil Aviation (PENAC) was prepared. In addition, emphasis was placed on a feasibility study of “Automation and Modernization of Air Traffic Services in Peru”, and on this basis a new project document was prepared, which included

the acquisition of eight monopulse secondary surveillance radars (MSSR) and a new area control centre building. In the field of air traffic management, steps were taken towards the development of area navigation/required navigation performance (RNAV/RNP) procedures in Cuzco Airport, and for the licensing of air traffic controllers.

PHILIPPINES

Improvement of Aviation Safety in the Philippines by enhancing the capability of the Civil Aviation Authority of the Philippines in safety oversight

Project goal

The objective of this project, which is funded by the Civil Aviation Authority of the Philippines (CAAP) and executed through a Trust Fund, is to improve aviation safety by enhancing the capability of the CAAP in safety oversight through: updated regulations and procedures; the availability of well-trained and qualified inspectors and surveyors; greater organizational authority and autonomy to achieve effective safety oversight of air operators, aircraft maintenance organizations, aerodromes and air traffic services; the enforcement of safety regulations and procedures; and the application of the Global Aviation Safety Plan (GASP) principles. This project began in May 2008 with an expected duration of 24 months.

Project achievements

The Project Coordinator and five experts in the fields of flight operations, airworthiness, aerodrome certification and personnel licensing, as well as other short-term specialists, were instrumental and directly involved in the development of the legal framework which enabled the transformation of the Aviation Training Organization (ATO) into the Civil Aviation Authority of the Philippines. New Civil Aviation Regulations (CARs) were developed on aerodrome certification, the operation and maintenance of aircraft, the transport of dangerous goods and on certification standards and inspector handbooks. Documents were approved and adopted during a public hearing. Extensive training activities were provided to CAAP staff in order to familiarize them with the new regulations. The project also assisted in creating a qualified and experienced workforce in the Flight Operations Inspector’s section by hiring and re-qualifying retired airline check pilots. In addition, the project provided assistance to CAAP in addressing safety oversight requirements. Team members continued to provide day-to-day advice to key personnel of the new CAAP administration.

REPUBLIC OF KOREA

ICAO/Republic of Korea Developing Countries Training Programme

Project goal

The objective of this project, which is funded by the Government of the Republic of Korea, is to assist the Civil Aviation Safety Authority of the Republic of Korea (KCASA) and the Korea Civil Aviation Training Centre (KCATC) with the administration of a programme to train participants from Developing States, as selected by the KCATC. The assistance covers the distribution of training information to all ICAO Contracting States and the issuance of letters of fellowship awards and letters of rejection. The project commenced in July 2007 and has a proposed duration of three years.

Project achievement

Fifty-two fellowship awards for three courses held at KCATC on Doppler VHF Omnidirectional Radio Range (DVOR) Maintenance, Global Navigation Satellite System (GNSS) (introductory course) and Radar Approach Control were issued by ICAO to participants from 30 countries.

QATAR

Airport Development

Project goal

The objective of this project, funded by the Government of Qatar, is to assist the Civil Aviation Authority (CAA) in planning and building the New Doha International Airport (NDIA), which will be completely independent of the existing airport. ICAO assistance provides aerodrome engineering expertise and acts as the CAA representative with the contractors and consultants. This project, which began in 2003 with an expected duration of five years, has been extended through June 2010.

Project achievements

ICAO's technical assistance, which is the aerodrome engineering portion of this US$10 billion project, is now 60 per cent completed; the overall airport project is now 43 per cent completed. The opening of the new airport is planned for July 2011.

RUSSIAN FEDERATION

TRAINAIR Programme for the St. Petersburg State Civil Aviation University

Project goal

The objective of this project, funded by the St. Petersburg State Civil Aviation University, is to upgrade and expand the capabilities of the methodological training system of the St. Petersburg State University of Civil Aviation (SPUCA) through the introduction of the ICAO TRAINAIR methodology in its training division. The project, which began in 2007 with a planned duration of one year, was completed at the end of 2008.

Project achievements

The TRAINAIR Central Unit granted SPUCA full membership in the TRAINAIR Programme in 2007. The qualified TRAINAIR Course Developers have started preparing a new Standardized Training Package (STP) for air traffic controllers.

SAUDI ARABIA

General Authority of Civil Aviation

Project goal

The objectives of this project, funded by the government of Saudi Arabia, are to support the General Authority of Civil Aviation (GACA) in providing safe, efficient and cost-effective aviation services; keeping the GACA up to date on changes in the civil aviation environment; preparing the GACA for the introduction of new technologies; and assisting the GACA in replacing foreign experts with national experts through professional training of qualified Saudi Arabian counterparts. This project, which began in 1997 with an initial duration of six years, has been extended through March 2009.

Project achievements

Twenty-four international experts worked on this project during 2008, providing consultancy services to project managers and Saudi Arabian Counterparts as required. Project activities included an overall inspection of new aircraft of Saudi Arabian Airlines and Saudi Royal Flight to ensure compliance with Standards and Recommended Practices (SARPs) and procedures, as well as regular inspections of air carriers/operators and safety oversight of GACA certified repair stations. The ICAO training experts, together with national instructors, have provided GACA personnel with complementary courses in the areas of communications, navigation and surveillance/air traffic management (CNS/ATM),

radar and non-radar courses, and simulator training. Expertise was also provided on establishing and implementing a professional career enhancement programme for the future development of fire rescue services. The replacement of international experts by qualified Saudi Arabian nationals continues to be pursued for the purpose of attaining the process of Saudiization.

SINGAPORE

Implementation of Training Programmes for Aviation Personnel from Developing Countries

Project goal

The objective of this project, funded by the Civil Aviation Authority of Singapore (CAAS), is to assist the Singapore Aviation Academy (SAA) with the administration of a programme to train participants from Developing States, as selected by the SAA. The assistance covers the distribution of related information to ICAO Contracting States and the issuance of letters of fellowship awards and letters of rejection. The project began in 2001 with an expected duration of three years.

Project achievement

Fifty-four fellows from 32 countries were trained in seven courses on aircraft accident investigation and management; civil aviation management; communications, navigation and surveillance/air traffic management (CNS/ATM); safety oversight/airworthiness inspectors (maintenance and engineering); safety oversight/flight operations inspectors; safety oversight managers; and integrated safety management systems at the SAA.

Air Traffic Forecast

Project goal

The objective of this project, funded by the Civil Aviation Authority of Singapore (CAAS), is to assist the CAAS with the updating of the air traffic forecast for Changi Airport. The project was implemented in September 2008.

Project achievements

An ICAO Air Traffic Forecasting Consultant was fielded for one month to Singapore. The report of the consultant was reviewed and finalized at ICAO Headquarters and submitted to the Government.

SOMALIA

Civil Aviation Caretaker Authority of Somalia (CACAS)

Project goal

This project, which is funded entirely from aeronautical charges collected through the International Air Transport Association (IATA), is based on the authorization given to ICAO by the United Nations Secretary-General to act upon civil aviation matters with respect to Somalia. Its objective is to provide assistance, under the supervision of the Director of the Technical Co-operation Bureau of ICAO, for the operation and maintenance of essential facilities, equipment and services for international air transport operations, including humanitarian and relief flights and local flight operations within the Mogadishu Flight Information Region (FIR), as far as feasible on a self-financing basis, in order to meet immediate requirements for safety; to assist in the rehabilitation and development of the aviation infrastructure, where feasible, and provided these activities are financed from sources other than aeronautical charges; and to plan, programme and develop an essential nucleus for the establishment of a functional civil aviation administration structure for the future government of Somalia. This project, which began in 1996 for an initial duration of seven years, was extended through 2006. Due to the continuing instability in the region and the non-availability of a functional national government, the project has been extended through 2009.

Project achievements

The project continued to assist in the management and administration of CACAS in coordination with the United Nations Humanitarian and Resident Coordinator for Somalia and the ICAO Regional Director, Eastern and Southern African (ESAF) Office. CACAS continued to provide flight information services (FIS), including aeronautical information services (AIS), aeronautical communications (AEROCOM) and aeronautical meteorological (AEROMET) services on a 24-hour basis to flights over Somalia airspace from the project office located in Nairobi. It also continued to provide aerodrome flight information services (AFIS), rescue and firefighting and ground marshalling services at Hargeysa, Berbera and Bosasso airports. The project operates AEROCOM substations at Hargeysa and Garowe airports, as well as an AIS briefing office at Hargeysa Airport. The installation and commissioning of a very small aperture terminal (VSAT), which is part of the NAFISAT (North Eastern AFI VSAT) network, was completed in February 2008. This terminal provides an international AFTN circuit to Nairobi and air traffic services (ATS) direct speech circuits to neighbouring FIRs in Addis Ababa, Djibouti, Mumbai, Sana'a and Seychelles. Reduced vertical separation minimum (RVSM) was successfully implemented on 25 September 2008. Seven weather stations were purchased for various airports in Somalia, including one for the Somali Civil Aviation and Meteorology Authority for installation at Mogadishu Airport. The project provided sixteen fellowships for training in various fields of aviation, including AIS cartography, RVSM, aviation security (AVSEC) instructors course and aviation management. In-house training on Lotus Notes

was provided to all staff based in Nairobi. CACAS continued to support local authorities, the United Nations Development Programme (UNDP) and other United Nations agencies with technical expertise and short assignments for airport assessments, and in this regard assessments were carried out at the new Garowe airfield, Hargeysa, Bosasso and Merka airports. The Hargeysa Airport runway was repaired and the airport was subsequenty placed under the authority of the Somaliland Minister for Civil Aviation and Air Transport.

SOUTH AFRICA

Assistance to the South African Civil Aviation Authority in Flight Safety Oversight

Project goal

The objective of this project, which is funded by the South African Civil Aviation Authority (SACAA), is to assist in the augmentation of its capabilities for providing an acceptable level of flight operations/safety oversight. The project, which began in May 2007 with an expected duration of 18 months, has been extended through October 2009.

Project achievements

The recruitment of the required number of inspectors for the establishment of a safety oversight mandate proceeded successfully. Training course requirements were determined and course development was completed. Training is ongoing using in-house programmes and external sources, but on-the-job training was hampered by a lack of qualified inspectors. In order to comply with ICAO Standards and Recommended Practices (SARPs), the regulatory framework was reviewed and amended. Inspector guidance material was developed and will be amended to reflect the changes to the aviation regulations. A Master Surveillance Plan (MSP) was implemented but requires improvement in audit and inspection frequency and methodology, as well as in the establishment of an automatic completion and follow-up tracking system. In relation to a Federal Aviation Administration (FAA) audit of SACAA, amendments were issued to guidance material as required, together with revisions to the aviation legislation, which resulted in an audit pass.

SRI LANKA

TRAINAIR Programme for the Civil Aviation Training Centre

Project goal

The objective of this project, funded by Airport and Aviation Services (Sri Lanka) Limited, is to upgrade and expand the capabilities of the Civil Aviation Training Centre (CATC) of Sri Lanka through the introduction of the ICAO TRAINAIR methodology. The project began in 2006 with a planned duration of four years.

Project achievements

The CATC Sri Lanka, having obtained full membership in the TRAINAIR Programme in 2006, delivered the Standardized Training Package (STP) 291/154/LAN ENG Aviation English Language Proficiency for Interviewers/Raters course. This course was open to national and international participants. The CATC initiated the preparation of three new STPs: Basic Training for Air Traffic Safety Electronics Personnel (ATSEP) — Ground-based; Statistical Techniques for Aviation Professionals; and AIS Headquarters Specialist. One member of the CATC Course Development Unit participated in the Fourth Regional TRAINAIR Coordination Conference RTCC/4 held in Cairo.

THAILAND

ICAO/Thailand Developing Countries Training Programme

Project goal

The objective of this project, which is funded by the Civil Aviation Training Centre (CATC) of Thailand, is to assist the CATC with the administration of a programme to train participants from ICAO Contracting States, as selected by the CATC. The assistance covers the distribution of related information to ICAO Contracting States and the issuance of letters of fellowship awards and letters of rejection. The project commenced in August 2008 and has a proposed duration of eight months.

Project achievements

Fifty-eight fellowships awards for three courses held at the CATC on Aviation English Language Proficiency (Interviewer/Rater); Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) for Air Traffic Service Manager; and Flight Operations Officer/Flight Dispatcher were issued by ICAO to participants from 10 countries.

UNITED NATIONS MISSION FOR KOSOVO

Creation of a Civil Aviation Regulatory Office (CARO)

Project goal

The objective of this project, funded by the United Nations Mission in Kosovo (UNMIK), is to assist UNMIK in building the institutional components required for a safe and efficient civil aviation infrastructure in accordance with ICAO Standards and Recommended Practices (SARPs) and European Commission regulations. This project, which began in 2003 with an expected duration of one year, was extended to the end of December 2008.

Project achievements

A new Civil Aviation Law for Kosovo came into force on 15 June 2008, which provides for the creation of the Civil Aviation Authority, which will take over from CARO on 1 January 2009. The transition process is being implemented by the Minister of Transport. Pristina International Airport was certified as meeting the Standards of ICAO Annex 14 — *Aerodromes*. CARO staff received training under the ICAO fellowship programme for initiating certification of the air navigation service providers, aeronautical information services (AIS) and meteorology services. Procedures were developed for such certification. An assessment of CARO was carried out by the European Commission in October 2008 to ensure compliance with the protocol of the European Common Aviation Area (ECAA) Agreement and the results were very positive. CARO provides assistance by working with the European Aviation Safety Agency (EASA) and the European Commission in the ongoing training of inspectors in aviation safety regulations and audits and through inspections within the framework of the projects.

VENEZUELA

Strengthening Human Resources

Project goal

The objective of this project, funded by the Government of Venezuela, is to provide technical assistance for strengthening human resources management at the Instituto Nacional de Aeronáutica Civil (INAC) of Venezuela through training, implementation of work methods, and recruitment. The primary focus is on development and implementation of corrective actions in the short to medium terms, and standardization and implementation of efficient and effective processes in the long term. This project, which began in 2006 with an expected duration of nine months, was extended through 2009.

Project achievements

Training as language proficiency evaluators was provided to previously selected INAC staff. An evaluation of all INAC technical staff was undertaken in order to determine language proficiency requirements and to develop appropriate training methods. The methodology for calculating airport and air navigation services fees was evaluated and advice relating to a corresponding methodology provided rules pertaining to airport and aeronautical fees/charges under the new tariff structure, and procedures for fees/charges recovery were adopted. The selection process of air traffic controllers was achieved by the introduction of new methodology and assessment tools. Recruitment plans were developed and initial on-the-job training schedules established for maintenance technicians working at airports and aeronautical facilities, as well as for aeronautical telecommunications operators. Integrated training programmes were generated to offer versatility, such as air traffic services (ATS) reporting office — communications — aeronautical information services, (ARO-COM-AIS services), and to update technical competence profiles through analysis and definition of job descriptions. A methodology was established for the development of training programmes as well as a biannual training plan on operational safety for all technical staff. Phase I of the training manual for Standardized Training Packages (STPs) on the maintenance of radio equipment using the TRAINAIR methodology was completed.

Modernization of Airports and Air Traffic Control

Project goal

The objective of this project, funded by the Government of Venezuela, is to assist the Instituto Nacional de Aeronáutica Civil (INAC) in the modernization of air traffic control and airport services with a view to ensuring the enhancement of civil aviation safety in Venezuela. This project, which began in 2004, has an expected duration of four years.

Project achievements

Progress of the three planning phases of the project continued with the implementation of 33 procurement contracts, which included renewal of equipment at the national level through the acquisition, installation and operation of communications, navigation and surveillance (CNS), search and rescue (SAR), aeronautical and airport fire protection systems and devices. Steps were taken for strengthening human resources through education and technical training of operational personnel.

TRAINAIR Programme for the Instituto Nacional de Aeronáutica Civil

Project goal

The objective of this project, funded by the Instituto Nacional de Aeronáutica Civil (INAC) of Venezuela, is to upgrade and expand the capabilities of the methodological training system of the Civil Aviation Training Centre "Miguel Rodríguez" through the introduction of the ICAO TRAINAIR methodology in its training division. The project, which began in 2007 with a planned duration of one year, has been extended through 2009.

Project achievements

The TRAINAIR Central Unit granted the Civil Aviation Training Centre "Miguel Rodríguez" full membership in the TRAINAIR Programme in 2008. One new Standardized Training Package (STP) was completed in accordance with TRAINAIR standards and two more STPs will be developed. A Course Developer Workshop was conducted, one expert was fielded to the training centre to reinforce the implementation of the TRAINAIR Programme through the conduct of the Course Developer Workshop, the provision of on-the-job training during the development of the two new STPs and the delivery of the instructor training programme. In addition, assistance was provided to support the implementation of English language proficiency requirements. Two experts from the Air Traffic and Navigation Services (ATNS) in South Africa delivered the STP Aviation English Language Proficiency Interviewer/Rater course at the Civil Aviation Training Centre (CATC) in Bangkok. Suitable staff members were trained as raters and subsequently provided on-the-job training to the newly trained raters. The experts, together with local staff, prepared a training plan which is now in progress.

YEMEN

TRAINAIR Programme for the Civil Aviation and Meteorology Institute

Project goal

The objective of this project, funded by the Civil Aviation and Meteorology Authority (CAMA) of Yemen, is to upgrade and expand the capabilities of the methodological training system of the Civil Aviation and Meteorology Institute (CAMI) through the implementation of the TRAINAIR Programme. The project began in December 2008 and has a planned duration of one year.

Project achievements

The recruitment process was completed and a TRAINAIR expert was fielded on 24 December 2008 in order to initiate steps with the Civil Aviation Authority (CAA) to implement the programme.

INTER-COUNTRY AND INTER-REGIONAL LISTINGS

AFRICA REGION

Cooperative Arrangements for Preventing the Spread of Communicable Diseases through Air Travel (CAPSCA)

Project goal

The objective of this project, funded by the United Nations Central Fund for Influenza Action (CFIA), is to reduce the risk of spreading avian influenza and similar communicable diseases by air travellers through cooperative arrangements between the participating States/administrations and the airports. The CAPSCA project is aimed at providing assistance to States to enable them to comply with Article 14 “Prevention of spread of disease” of the *Convention on International Civil Aviation* (Doc 7300). Furthermore, Annex 9 — *Facilitation* requires States to establish a national aviation plan in preparation for an outbreak of a serious communicable disease. This project, which began in March 2008, has an expected duration of two years.

Project achievements

Two workshops on the subject of prevention of the spread of communicable diseases by air travellers were held in Dakar and Johannesburg with the participation of 20 delegates from directorates of civil aviation, airport authorities, public health authorities and airlines. Cape Verde, Chad and Nigeria joined the project in 2008. More States expressed interest in joining the project during the ICAO Special Africa/Indian Ocean Regional Air Navigation (Special AFI RAN) meeting held in Durban. The recruitment of a Regional Coordinator for the Western and Central Africa Region and a Chief Medical Officer of the Nigerian Civil Aviation Authority was completed. The recruitment of a Regional Coordinator for the Eastern and Southern Africa Region and a Chief Medical Officer for the South African Civil Aviation Authority is progressing.

Cooperative Development of Operational Safety and Continuing Airworthiness Project in the Banjul Accord Group (COSCAP-BAG) Member States and a Feasibility Study on its Institutionalization

Project goal

The objectives of this project, funded by Member States of the BAG (Cape Verde, Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone) and with in-kind and financial support from donors, are to enhance the safety and efficiency of air transport operations through the establishment of a regional core of highly qualified safety inspectors for certification, continuous surveillance, audit and training activities; develop harmonized aviation laws, regulations, certification/surveillance procedures; and provide assistance to States in the conduct of safety oversight activities, as required, as well as determine the feasibility of establishing COSCAP-BAG as a regional safety organization — BAG Aviation Safety Oversight Organization (BAGASOO). This project, which began in 2005 with an initial expected duration of two years, has been extended to 2010.

Project achievements

The COSCAP-BAG project's staffing situation improved with the recruitment of a new chief technical adviser/flight operations expert and an administrative assistant and by including an aerodrome safety and certification section, comprising of an aerodrome expert and a regional aerodrome inspector. The composition of the Flight Safety Working Group (FSWG) was expanded to take into account aerodrome safety. A Memorandum of Understanding (MoU) was signed in respect of the new Cooperative Inspectorate Scheme (CIS), to allow for the creation of a larger team of inspectors for effective project implementation. COSCAP-BAG collaborated with ICAO and the Federal Aviation Administration (FAA) to conduct Government Safety Inspector (GSI) training for 25 airworthiness and flight operations inspectors, resulting in the successful completion of phase one of the GSI training. The project obtained approval for the establishment of phase two of the GSI training programme. The development of manuals on airworthiness inspectors' qualifications, training, duties, certification and continuing surveillance was completed. The airworthiness inspectors' handbook was completed and work began on the development of a flight operations inspectors' handbook and guidance material. Significant progress was made by some BAG Member States in the alignment of existing regulations with generic regulations developed by COSCAP-BAG. In collaboration with the African (AFI) Comprehensive Implementation Programme (ACIP), a series of gap analyses based on the global aviation safety roadmap (GASR) methodology was conducted in BAG Member States to determine the support required to meet their aviation safety obligations.

Cooperative Development of Operational Safety and Continuing Airworthiness Project in the Economic and Monetary Community of Central Africa (COSCAP-CEMAC) Member States

Project goal

The objectives of this project, which is funded by CEMAC Member States (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon) and Sao Tome and Principe, with financial input from the African Development Bank, The Boeing Company, the French Cooperation Agency and the International Financial Facility for Aviation Safety (IFFAS), are to enhance the safety of air transport operations; facilitate a coordinated approach to shared technical expertise; augment national inspectors' technical knowledge and qualifications by providing classroom and on-the-job training; perform regional air operator certification and surveillance tasks on behalf of the Civil Aviation Authorities (CAAs) whose oversight capability is currently limited; and establish an aerodrome inspection programme which will lead to the creation of an aviation safety organization among the Member States. This project, which was approved in 2005 but only started in 2008 due to political instability and restrictions placed on travel to N'Djamena, which is the designated location for the COSCAP-CEMAC project, has an expected duration of three years.

Project achievements

The project office is currently located in N'Djamena with four personnel, including two Regional Airworthiness Inspectors, one Flight Operations Inspector and one Flight Operations Expert/Project Coordinator. A Steering Committee meeting was held in Douala in April 2008.

Cooperative Development of Operational Safety and Continuing Airworthiness Project in the Southern African Development Community (COSCAP-SADC) Member States

Project goal

The objective of this project, funded by Member States of the SADC (Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe), is the establishment of a semi-permanent or permanent regional cooperative organization referred to as the SADC Aviation Safety Organization (SASO) whose mandate is to carry out the full range, or part as required, of certification and surveillance functions on behalf of SADC Member States and establish a training resource centre in these areas. This project, which began in April 2008, has an expected duration of 36 months.

Project achievements

Two steering committee meetings were convened and the project met its goals and objectives during the first year of implementation. The project achieved half of its assessments on the status of corrective actions taken by Member States in response to their most recent USOAP audit. A detailed work programme for the development of generic regulations for flight operations, airworthiness and personnel licensing was developed. A comprehensive training plan for national and regional flight safety inspectors was developed, as well as a detailed work plan for the development of procedural manuals and documents for flight operations, airworthiness and personnel licensing inspectors.

Cooperative Development of Operational Safety and Continuing Airworthiness Project in the West African Economic and Monetary Union (COSCAP-UEMOA) Member States

Project goal

The objectives of this project, funded by UEMOA Member States (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo), The Boeing Company, the European Commission, the French Cooperation Agency and the International Financial Facility for Aviation Safety (IFFAS), are to enhance the safety of air transport operations; augment technical knowledge and qualifications of national inspectors by providing theoretical and on-the-job training; perform air operator certification and surveillance tasks on behalf of the Civil Aviation Authorities (CAAs) whose oversight capabilities are currently limited; and establish an aerodrome inspection and certification programme which will lead to the creation of an aviation safety organization among the Member States. This project, which began in 2004 with an expected duration of three years, has been extended for one year.

Project achievements

Civil Aviation Authorities of two Member States received assistance in the drafting of an amendment to the national air law. Missions were conducted in five of the eight Member States to evaluate conformity among Civil Aviation Authorities by establishing regulations and implementing procedures that are in line with ICAO Annexes 1, 6 and 8, as well as guidance material (*Manual of Procedures for Operations Inspection, Certification and Continued Surveillance* (Doc 8335)). Upon completion of the Universal Safety Oversight Audit Programme (USOAP) audits, and in order to assist national inspectors in conducting aircraft ramp inspections, the implementation status of the corrective action plans was monitored. A draft amendment of existing regulations was undertaken and new regulations in line with the expansion of the USOAP scope were introduced. Formal training was conducted by the Federal Aviation Administration (FAA) in Sal, at the Joint Aviation Authorities (JAA) (Netherlands), at the European Aviation Safety Agency (EASA) (Germany), and Safety

Assessment of Foreign Aircraft (SAFA) programme inspections were conducted at the Toulouse regional office of the Directorate General of Civil Aviation (DGCA) in France. COSCAP-UEMOA inspectors took part in the global aviation safety roadmap (GASR) seminar held in Abuja and hosted the first French language GASR seminar in Ouagadougou. The COSCAP website was updated on a regular basis to share information with the aviation community.

AMERICAS REGION

Technical Cooperation to the Latin American Civil Aviation Commission (LACAC)

Project goal

The objective of this project, funded by 22 participating States of LACAC, is to provide administrative assistance in the management of the LACAC Secretariat. This project originated from the new Working Arrangements signed between the President of the ICAO Council and the President of LACAC on 21 December 2005, taking into consideration the managerial and financial autonomy of the regional organization. These Working Arrangements became effective on 1 January 2007. The project began in January 2007 with an expected duration of two years.

Project achievements

Support was provided through numerous activities such as administrative management training, meetings, seminars, processing of fellowships and travel arrangements.

New Management Model for Central American Institute of Aeronautics Training (ICCAE) and Aeronautics School of the Central American Corporation for Air Navigation Services (COCESNA)

Project goal

The objective of this project, which is funded by COCESNA, is to develop a new management model for ICCAE in order to promote a products portfolio and the direct management of services, as well as to recruit highly-qualified instructors in order to establish and develop plans/programmes directed towards competitions for accreditations and certifications which place them at the global level. This project began in June 2008 with a planned duration of nine months.

Project achievements

Two experts designed the new management model for the COCESNA Training Institute. The new model allowed ICCAE to maintain an active revenue-generating mechanism which complies with the features of the COCESNA Strategic Plan.

Communications, Navigation and Surveillance (CNS) Digital Network — Management of the South American Digital Network (REDDIG) and Administration of the Satellite Segment

Project goal

The objective of this project, funded by Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, France, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela, is to establish a multinational mechanism to manage the CNS Digital Network through the REDDIG, taking into consideration regional developments and aimed at modernizing the aeronautical fixed service communications, so as to make it homogeneous, interconnectable and interoperable with other digital networks within the Caribbean and South American (CAR/SAM) Region. This project, which began in 2003 with an expected duration of five years, has been extended through 2010.

Project achievements

The project continued to manage the REDDIG in an effective manner by controlling the satellite segment which provides States with a strong and reliable network for their aeronautical telecommunications services. The original terms were maintained in the renewal of the agreement for the satellite segment provider. Training courses on the maintenance and operation of REDDIG stations were provided in both English and Spanish to the new technical staff. The REDDIG Management Centre was transferred to Ezeiza to alternate between the two REDDIG Control Centres and provide more strength to the REDDIG operation.

Global Navigation Satellite System (GNSS) Transition in the Caribbean and South American (CAR/SAM) Region — Augmentation Solution for the Caribbean, Central America and South America (SACCSA)

Project goal

The objective of this project, funded by the Governments of Bolivia, Chile, Colombia, Cuba, Spain, Venezuela and the Central American Corporation for Air Navigation Services (COCESNA), is to plan the development of the technical, financial and operational aspects of a pre-operational satellite-based augmentation system (SBAS) for the CAR/SAM Region, taking into account the

evolutionary development of the GNSS, recommendations of the Eleventh Air Navigation Conference (AN-Conf/11) and the conclusions of the CAR/SAM Regional Planning and Implementation Group (GREPECAS). This project, which began in 2003 with an expected duration of four years, was extended through 2008.

Project achievements

The Sixth Meeting of the Project Coordination Committee, which was held in April in Santiago de Chile, defined a third project phase to analyse all alternatives, create a prototype and process data to obtain an SBAS-like message for demonstrating the implementation feasibility of an SBAS system in the CAR/SAM Region based on real-time data. Subject to a positive outcome of this study, a cost-benefit analysis and validation/certification tasks would be undertaken. States in the CAR/SAM Region approved a resolutuion to support the implementation of an SBAS system.

Air traffic management (ATM) operational concept and the corresponding technological support for communications, navigation and surveillance (CNS)

Project goal

The objective of this project, which is funded by Argentina, Bolivia, Brazil, Chile, Panama, Peru, Paraguay, Uruguay and Venezuela, is the development and implementation of global air navigation plan initiatives, which will lead to the transition from an air traffic management system based on ground systems to a system based on aircraft performance; the implementation of aeronautical information services (AIS) quality assurance and safety management systems in accordance with international Standards; and the development of a strategy for the implementation and integration of automated air traffic management systems in the CAR/SAM Region to facilitate the exchange of information and collaborative decision-making with respect to all components of the ATM system. This project began in 2007 with an expected duration of five years.

Project achievements

Project activities included the development of guidance material on action plans for implementing performance-based navigation (PBN). Guidance material was also developed for improvements in communications, navigation and surveillance (CNS) to satisfy operational requirements in the short and medium terms; and for IP network implementation. Guidance material on the implementation of South American (SAM) Automation Systems (SSS), State Safety Programmes (SSP) and Safety Management Systems (SMS) was drafted. Air traffic data were collected and analysed in order to understand traffic flows within a specific airspace. The project was awarded 16 fellowships for participation in two SAM Implementation Workshops.

Regional Safety Oversight System

Project goal

The objective of this project, funded by Argentina, Bolivia, Brazil, Chile, Cuba, Paraguay, Peru, Spain, Uruguay, Venezuela, Airbus, Agencia Centroamericana de Seguridad Aeronáutica (ACSA), LAN (Chile), ENAER (Chile), SEMAN Peru and Venezuelan Airlines, is to establish and operate a regional safety oversight system in the South American (SAM) Region with the required technical, logistical and administrative support. This project began in 2003 and has an expected duration of five years.

Project Achievements

This project continued to efficiently manage the development of various activities, which included the Latin American Aviation Regulations (LARs); designation of focal points in Contracting States; the organization of board meetings, seminars, panels and workshops in the areas of safety, operations, airworthiness, ramp inspection, and aviation medicine; the development of technical manuals on personnel licensing; and the training of auditors, while following ISO standards, in safety management systems. Training played an active role and 79 fellowships were awarded for project-related activities.

ASIA AND THE PACIFIC REGION

Cooperative Agreement for Enhancement of the Meteorological Service for Aviation in the South Pacific (CAEMSA-SP)

Project goal

This project is a cooperative agreement between eight participating South Pacific States (Cook Islands, Fiji, Kiribati, Nauru, Samoa, Solomon Islands, Tonga and Vanuatu) and executed by means of a trust fund. The objective is to enhance the safety and efficiency of air transport operations in the region by developing meteorological services in the South Pacific, including sustainable development of meteorological services, quality management systems, cost recovery methods, contingency measures, national legislation, and maintenance of adequate levels of trained personnel. The project, which is implemented in close consultation with the World Meteorological Organization (WMO), deals with deficiencies in the provision of basic meteorological services in the South Pacific subregion, identified by a Special Implementation Project (SIP) in 2005, the International OPMET data banks, the International Air Transport Association (IATA), ICAO audits and the ICAO Asia and Pacific (ASIA/PAC) Regional Office. This project, which began in April 2008 with an expected duration of three months, has been extended to January 2009.

Project achievements

One Aeronautical Meteorological Expert was assigned for a period of three months to assess deficiencies and develop pragmatic, cost-effective solutions. Brief visits to participating States revealed a lack of meteorological measuring equipment, lack of Quality Management Systems, lack of a designated meteorological (MET) authority and bilateral agreements for interstate MET services, and the lack of trained personnel, as well as unreliable telecommunications systems. A set of recommendations was included in a final report to be circulated after December 2008. Grant funds from the International Financial Facility for Aviation Safety (IFFAS) were awarded to defray the project costs.

Cooperative Arrangement for Preventing the Spread of Communicable Diseases through Air Travel (CAPSCA)

Project goal

The objective of this project, which is funded by the Civil Aviation Administration and Airport Authorities in participating States and Special Administrative Regions, (China (Hong Kong SAR and Macao SAR), Indonesia, Malaysia, Nepal, Philippines, Singapore, Solomon Islands, Thailand, Tonga and Viet Nam), aims at reducing the risk of spreading avian influenza and similar communicable diseases by air travellers through cooperative arrangements between the participating States, administrations and airports. This will be achieved initially by the application and implementation of ICAO guidelines for preventing the spread of communicable diseases at major international airports, as well as by training personnel from participating civil aviation authorities, airports and airlines in aviation medicine to ensure the continued implementation of these guidelines and to assist other States in the region that may join the programme. This project, which began in September 2006, has been extended through 2010.

Project achievements

An aviation medical expert visited Bali, Cebu, Jakarta, Jinan, Kuala Lumpur, Manila, Singapore and Thailand airports and conducted a joint evaluation with the World Health Organization (WHO) on their application and implementation of the ICAO guidelines on the Global Preparedness Plan (Aviation Aspects) for Avian Influenza/Communicable diseases. The expert also provided on-the-job training to airport and airline personnel. Aviation medicine/personnel licensing workshops were also held in Karachi and New Delhi. Presentations on CAPSCA were made at the 45th Conference of Directors General of Civil Aviation (DGCA) Asia and Pacific Region and at the ICAO-World Bank Development Forum. A Second Steering Committee Meeting was held in Bali where approval for the project by the DGCA Conference was requested. The Second Regional Aviation Medical Team (RAMT) meeting took place at the ICAO Regional Office in Bangkok. Significant conclusions were derived concerning State level planning

for pandemic preparedness as well as airline and airport preparedness plans. Grants from the United Nations Central Fund for Influenza Action (CFIA) were utilized to defray costs of the project. Solomon Islands, Tonga and Viet Nam joined CAPSCA in 2008.

Cooperative Aviation Security Programme — Asia/Pacific Region (CASP-AP)

Project goal

This project, funded by participating Governments/Administrations from Australia, Bhutan, Brunei Darussalam, Cambodia, China (Hong Kong SAR and Macao SAR), Fiji, India, Indonesia, Japan, Kiribati, Lao People's Democratic Republic, Maldives, Malaysia, Mongolia, Nepal, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, Timor-Leste and Viet Nam, is aimed at ensuring compliance with international conventions, ICAO Standards and Recommended Practices (SARPs) and guidance material related to aviation security (AVSEC). It is also aimed at creating a regional structure for cooperation and coordination in aviation security matters and for training aviation security personnel. This project, which commenced in 2004 with an expected duration of 36 months, was extended through 2013.

Project achievements

Programme membership increased from 21 to 23 States and administrations in 2008. National AVSEC Programmes were developed for 16 States with four pending. Nine air carrier programmes and 13 National Quality Control programmes were evaluated. Fifteen National Training Programmes were developed and customized for individual States and administrations. Nine in-country AVSEC Instructor Courses were provided for more than 100 participants. A National AVSEC Inspector Course was held in Viet Nam with 20 participants and a Quality Control Workshop for the Pacific Islands was held in Tonga. Model AVSEC legislation was developed and national legislation was reviewed for 20 States and administrations with 17 reports finalized. Model AVSEC regulations are under development. An evaluation visit was carried out to Brunei Darussalam. Grant funds from the European Commission (EC) were utilized to field an AVSEC Training Consultant and an Air Law Expert.

Cooperative Development of Operational Safety and Continuing Airworthiness Project — North Asia (COSCAP-NA)

Project goal

The objective of this cooperative project, funded by China, Democratic People's Republic of Korea, Mongolia and the Republic of Korea, which is executed by means of a Trust Fund project provided by the participating States, and

supported by Airbus, the Association of Asia Pacific Airlines (AAPA), The Boeing Company, Bombardier, the European Commission (EC), the Federal Aviation Administration (FAA), the International Financial Facility for Aviation Safety (IFFAS), and Transport Canada, is to enhance the safety and efficiency of air transport operations in the region. COSCAP-NA is a dedicated forum for promoting continuing dialogue, coordination and cooperation in matters related to flight safety among its participating civil aviation administrations and for creating an environment for harmonization and advancement in safety oversight policies, procedures and regulations. It also provides an efficient and cost-effective method for the conduct of inspection and certification of operators, aircraft and training establishments, and for training safety oversight personnel. In addition, it enables these States to be effective in promoting accident prevention through the establishment and supervision of the North Asia Regional Aviation Safety Team (NARAST). This project, which began in 2003 with an expected duration of five years, has been extended through 2012.

Project achievements

The ICAO Universal Safety Oversight Audit Programme (USOAP) has expanded in order to audit all safety-related areas and to assist Member States in implementing ICAO Standards and Recommended Practices (SARPs), accordingly. NARAST recommendations were implemented through the issuance of guidance material and the provision of workshops and training. An implementation status report system was used to track the implementation of the recommendations. With the goal of improving efficiency and effectiveness, a joint meeting of the safety teams of COSCAP-NA, COSCAP-SA and COSCAP-SEA was conducted. The Steering Committee assigned high priority to the training of national inspectors. Training courses were provided in each State where the number of national participants warranted, as well as in central locations in the subregion. Air operators and service providers were invited to send participants to these training courses. Fifteen courses/workshops/seminars were conducted in the areas of cabin safety, accident investigation, dangerous goods, English language proficiency testing and rating, maintenance safety management systems, ground accident prevention, ground icing and accident and incident reporting systems (European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS)), in which 599 persons participated, bringing the total number of nationals trained since the programme’s inception to 3 448 persons attending 105 courses/seminars/workshops. To assist Member States with their implementation of ICAO SARPs, in particular in the area of safety oversight, foreign experts were engaged on a short-term basis. Furthermore, cooperation between Member States and donors was arranged in the areas of dangerous goods, aerodrome safety, air traffic services and accident investigation.

Cooperative Development of Operational Safety and Continuing Airworthiness Project – South Asia (COSCAP-SA) Phase 3

Project goal

This project is a cooperative agreement, funded by the Governments of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, which is executed by means of a Trust Fund project provided by the participating States, supported by Airbus, The Boeing Company, the European Commission (EC), the Federal Aviation Administration (FAA), the International Financial Facility for Aviation Safety (IFFAS) and Transport Canada. The objective is to enhance the safety and efficiency of air transport in the subregion. The main objectives of Phase 3 include strengthening the regional institutional framework for aviation and assisting in the development of a harmonized regulatory framework; promoting a comprehensive system approach to conduct safety oversight activities based on effective implementation of ICAO SARPs and efficient oversight capabilities; developing a regional information sharing system to improve access to safety-related information; assisting CAAs of Member States in their efforts to comply with international and national civil aviation Standards and supporting human resources development in the field of civil aviation. This project, which began in 1998 with an expected duration of five years, has been extended to 2012.

Project achievements

Following the expansion of the USOAP, the COSCAP-SA, which entered its third phase in January 2008, also expanded its programme to cover all safety areas subject to SARPs. Training courses were conducted in each State where the number of national participants warranted, as well as in central locations in the subregion. Two hundred and eighty one (281) training courses and seminars were conducted in which 6 498 persons participated. Air operators and aviation service providers were invited to send participants to these training courses. Safety-related documents and manuals were reviewed, updated and reissued. A task force was formed for the standardization of maintenance regulations. Regional experts undertook technical assistance missions to each Member State twice a year to carry out safety oversight tasks, conduct classroom and on-the-job training and assist in their review of safety oversight related SARPS. The official website was updated and expanded to provide wider coverage of pertinent safety-related information and guidance material. Accident prevention was promoted by the South Asia Regional Aviation Safety Team (SARAST) in accordance with the ICAO Global Aviation Safety Plan (GASP). COSCAP-NA, COSCAP-SA and COSCAP-SEA agreed to have a combined meeting of Regional Aviation Safety Teams (RASTS) as the Asia Regional Aviation Safety Team (ARAST). One senior official in each participating CAA was designated as National Coordinator to act as a focal point for communication and coordination tasks between the respective States and the COSCAP-SA Project. A meeting of National Coordinators was held in Bhutan to discuss implementation strategies and States' specific needs. Relevant safety enhancements identified by the

Commercial Aviation Safety Team (CAST-United States) and the European Safety Strategy Initiative (ESSI-Europe) were reviewed and adopted through SARAST and a signature tracking system for their implementation at the State level was developed and included in the website. A National Aviation Safety Team (NAST) was established in each Member State to develop coordination with SARAST and ARAST. A grant from the International Financial Facility for Aviation Safety (IFFAS) was utilized to provide supplementary assistance in the development of personnel licensing and aviation medicine. Grants from the European Commission (EC) were utilized for the fielding of the Regional ATS Safety Expert and the Regional Aerodrome Safety Expert.

Cooperative Development of Operational Safety and Continuing Airworthiness Project — South-east Asia (COSCAP-SEA)

Project goal

This project is a cooperative agreement between the Governments of Brunei Darussalam, Cambodia, China (Hong Kong SAR and Macao SAR), Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam, and is executed by means of a Trust Fund provided by the participating States and supported by Airbus, The Boeing Company, the European Commission (EC), the Federal Aviation Administration (FAA), and the International Financial Facility for Aviation Safety (IFFAS). The objectives are to enhance the safety and efficiency of air transport operations in the region; enhance the training and professional development of national airworthiness and flight operations inspectors; harmonize policies and regulations; provide certification and inspection assistance to States currently unable to meet regulatory obligations; coordinate technical assistance programmes; and establish a regional aviation safety team to implement globally developed solutions for safety concerns. This project, which began in 2001, has been extended through 2011.

Project achievements

COSCAP-SEA established a mechanism to implement the ICAO Global Aviation Safety Plan (GASP) and, similar to the ICAO Universal Safety Oversight Audit Programme (USOAP), this mechanism has been expanded to audit all safety-related areas in order to assist Member Administrations with the implementation of ICAO SARPs. The Steering Committee assigned a high priority to the training of national inspectors. Training courses were conducted in each State where the number of national participants so warranted, but more often training was provided at central locations in the subregion. Air operators and service providers were invited to send participants to these training courses. Twenty-four courses/seminars/workshops were provided to 1 011 participants. The Ninth Meeting of the South-east Asia Regional Aviation Safety Team (SEARAST) was conducted in November 2008. SEARAST issued numerous guidance documents and provided workshops to assist with the implementation of the SEARAST

recommendations. An implementation status report system was developed to track the implementation of the recommendations. COSCAP-SEA activities continued to foster cooperation among participating Administrations in the remedying of safety oversight deficiencies in the subregion. The COSCAP-SEA programme was very active in 2008 in providing support to Member Administrations in relation to the USOAP process. COSCAP-SEA is active in providing support to Brunei Darussalam, Cambodia and Viet Nam concerning their corrective action plan. COSCAP-SEA was also active in providing assistance to China (Hong Kong SAR and Macao SAR), Lao People's Democratic Republic, Philippines and Myanmar, with the implementation of safety oversight-related SARPs.

EUROPE AND THE MIDDLE EAST REGION

Cooperative Development of Operational Safety and Continuing Airworthiness Project — Gulf States (COSCAP-GS)

Project goal

The objective of this project, funded by the Governments of Bahrain, Kuwait, Qatar, the United Arab Emirates and Yemen, is to enhance the safety and efficiency of air transport in the Gulf States subregion through the harmonization and effective application of international Standards and national safety oversight provisions, regulations and procedures, thus contributing to the social and economic development of the subregion and promoting greater cooperation among participating States. It is also aimed at creating a regional structure for cooperation and coordination in aviation security matters and for training aviation security personnel. This project commenced in January 2006 with an expected duration of five years.

Project achievements

Aiming at a common system of regulations, the project's priority continued to be the development of both draft harmonized regulations on aviation safety and security based on the European model, where appropriate, and the training of inspectors. Model national civil aviation security programmes, incorporating ICAO SARPs and enhanced security measures and procedures, were drafted in consultation with the national administrations. Efforts to implement ICAO recommendations with regard to liquids, aerosols and gels (LAGs) and self tamper evident bags (STEBs) continued. An initiative with the Cooperative Aviation Security Programme for the Asia and Pacific Region (CASP-AP) to develop a Memorandum of Understanding for use by States in achieving mutual acceptance of each others LAG/STEB supply chain was also launched.

Development of Operational Safety and Continuing Airworthiness in the Commonwealth of Independent States (CIS)

Project goal

This project is a cooperative agreement between the States of the Commonwealth of Independent States (CIS) (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) implemented within the framework of the fund established by the CIS, Airbus, The Boeing Company, General Electric, the European Commission (EC), the Ilyushin Aviation Complex and the Interstate Aviation Committee (IAC) and with the financial support of the International Financial Facility for Aviation Safety (IFFAS). The objectives are to enhance the safety oversight capabilities of participating States by establishing a regional flight safety training/advisory centre at the IAC; provide assistance in overcoming deficiencies; provide training to national inspectors; and to harmonize national aeronautical legislation as may be required. The project, which began in 2001 with an expected duration of six years, is being extended on an annual basis.

Project achievements

In 2008, five international seminars, conferences, and coordination meetings were held and over 2 000 inspectors and experts from aviation administrations in the region received training. With support from Airbus and The Boeing Company, work continued in the development of a comprehensive system of aviation regulations to be introduced progressively in the national legislations of States. Flight Safety Inspectors Training Courses were organized at the newly established IAC Training/Advisory Centre, in coordination with and financially supported by IFFAS for inspectors from Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan and Ukraine.