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of the Assembly in 2013

Annual Report of the Council

2010

International Civil Aviation Organization

"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

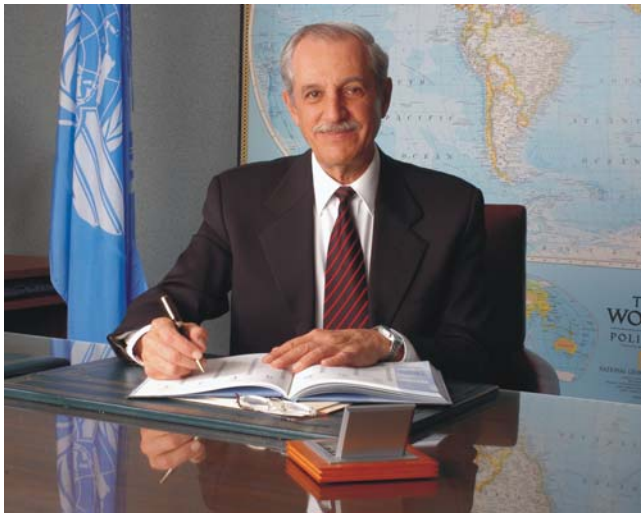
"WHEREAS it is desirable to avoid friction and to promote that cooperation between nations and peoples upon which the peace of the world depends;

"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 2010 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 2013, but it is being circulated to Member 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.

Uniting Aviation on Safety, Security and the Environment

An Assembly year has special significance because it is a time to reflect on recent achievements and plan for the future. As with past Assemblies, the 37th Session established a three-year work programme, approved the Organization's budget and elected a new Council. Under the banner "ICAO: Uniting Aviation on Safety, Security and the Environment," it also adopted strategies for continuing the safe and orderly development of our global air transport system.

Without a doubt, effective strategies will be critically important given the anticipated exponential growth in air travel. ICAO's long-term traffic forecast indicates that annual passenger volume could double to five billion by 2030. Handling these hundreds of millions of additional air travellers will require huge investments in new aircraft and infrastructure, and calls for training hundreds of thousands of aviation professionals to manage and operate complex systems and technologies. Greater collaboration among stakeholders will be essential in order to meet growing demand for air travel without compromising aviation safety, security or the industry's long-term sustainability.

The Assembly agreed on a strategic approach to our highest priorities of safety, security and environmental protection. By so doing, ICAO can continue to accommodate the rising demand for air travel while also addressing the challenges posed by industry growth.

In terms of safety, the Assembly fully endorsed the conclusions and recommendations of the High-Level Safety Conference of March 2010. The aim of the strategy is to reduce the global accident rate while ensuring no region experiences an accident rate that is more than twice the world average.

ICAO's approach to safety has shifted over the past few years. One excellent example is the more effective and wider sharing of safety information among regulators and industry. This helps to better identify risks and makes it possible to take action before unsafe conditions produce an accident.

A concrete step in information sharing was taken on the opening day of the Assembly, when ICAO signed a ground-breaking Memorandum of Understanding (MoU) with the U.S. Department of Transportation, the Commission of the European Union and the International Air Transport Association (IATA), to create the Global Safety Information Exchange. The MoU is highly symbolic of what can be accomplished when we want to make things happen.

The Assembly also endorsed ICAO's approach to runway safety enhancement. The majority of fatal accidents occur during the take-off and landing phases of flight, often in the runway environment. ICAO has adopted a multidisciplinary approach to runway safety issues with the aim of significantly reducing the number of events. This effort brings together representatives from airlines, airports, air navigation service providers and regulatory authorities.

Where security is concerned, the Declaration on Aviation Security adopted unanimously by the Assembly constitutes a very strong commitment by States to strengthen aviation security worldwide, principally by enhancing international cooperation. Not simply a statement of political will, the Declaration defines key activities to be undertaken by States in order to address the evolving threat in a proactive and collective manner.

The Assembly also endorsed a new aviation security strategy for the coming years and stressed the importance of its implementation. This comprehensive strategy allows the Organization to allocate resources more efficiently to critical objectives. Aside from advancing the policy and regulatory framework, it entails a continuation of ICAO security audits while focusing more intently on addressing shortcomings through assistance to States, notably by capacity-building efforts.

There was also support for a proposal to collaborate with industry in developing a next-generation screening system — the so-called "checkpoint of the future." The focus on improving screening processes underscores the importance of striking a balance between the effectiveness of security measures and the need to ensure an efficient flow of passengers through the necessary security procedures.

On the environmental front, the triennium preceding the 37th Session of the Assembly was especially important in terms of international aviation and climate change, with ICAO adopting a Programme of Action that meant, in essence, that international aviation had become the first sector to agree on a global goal for CO_2 emissions. As we went into the Assembly, other remarkable achievements included agreement on a global framework for development and deployment of sustainable alternative fuels for aviation as well as an agreement on the deadline of 2013 for the development of a CO_2 standard for aircraft.

At the Assembly, States fully endorsed ICAO's proactive achievements in the field of international aviation and climate change, including the adoption of global aspirational goals of 2 per cent annual fuel efficiency improvement and, in the medium-term, stabilization of CO_2 emissions. There was also agreement on the guiding principles for the design and implementation of market-based measures for international aviation, and a process for developing a related framework. States' willingness to voluntarily submit action plans to ICAO will lead to a dynamic shift in the role of the Organization, with a new focus on implementation rather than standard policy setting.

Despite admittedly difficult discussions on the environment, the Assembly adopted a resolution confirming ICAO's leadership role. It reaffirmed that the climate change issue, as it applies to international aviation, must be managed and resolved through ICAO.

The Assembly also strove to improve the overall efficiency of the global air transport system. ICAO's future work on promoting air transport liberalization was endorsed, as well as a plan to guide States on investing in aviation infrastructure development over the next decade. Moreover, on the eve of the Assembly, international cooperation was strengthened with the signing of several Memoranda of Cooperation with regional organizations and regional civil aviation bodies. The agreements underscore ICAO's role as a global forum for cooperation among States and all aviation partners.

As we move forward, global cooperation remains the key to meeting all of our challenges, as it has since 1944.

Roberto Kobeh González
President of the Council

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NOTES

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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 United States dollars (USD), 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 Member States.

TABLE OF CONTENTS

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

During 2010, the focus was on development of a comprehensive strategy based largely on transparency and the greater sharing of information among States and with industry. States were urged to provide information on the performance of their safety oversight systems, and provide safeguards to ensure that sensitive information is used solely for safety reasons. Overall, the new strategy provides regulators and industry with the tools and information needed to mitigate safety risks before they result in accidents.

High-level Safety Conference 2010

The ICAO High-level Safety Conference 2010 (HLSC/2010) held in Montréal in March/April produced 47 recommendations that provided the basis for a strategy focused on significantly improving aviation safety around the world. The conference highlighted the need to adopt proactive safety management and stressed the role of greater transparency and sharing of safety-related information among Member States and industry stakeholders in efforts to enhance global aviation safety. The event was attended by 551 participants from 117 Member States as well as observers from 32 international organizations.

Global Aviation Safety Plan

The 37th Session of the Assembly called for the Global Aviation Safety Plan (GASP) to be updated in 2011 with the aim of creating a strategic document focused on coordinating and implementing safety activities by ICAO, its Member States and the aviation industry. The enhanced GASP will help define priorities and allocate resources throughout each ICAO triennium, with the achievement of global safety goals and associated safety targets highlighted at each Assembly. By improving GASP, it will also be possible to align and coordinate activities conducted by regional organizations and regional civil aviation bodies. In addition, a complementary document known as the Global Aviation Safety Roadmap (GASR) will be used by Member States, regional entities, and aviation industry stakeholders to facilitate implementation of safety enhancement strategies at the State, subregional and regional levels.

Establishment of the Safety Fund

The Council approved the establishment of a new fund dedicated to improving aviation safety. The Safety Fund (SAFE) will allot resources to assistance projects using a performance-based approach, while limiting administrative costs and ensuring that voluntary contributions are used in a responsible, consistent,

transparent and timely manner. The Council also proposed transferring funds managed by the ICAO International Financial Facility for Aviation Safety (IFFAS) to the newly created SAFE in order to finance IFFAS activities more efficiently.

In adopting Resolution A37-16: *The Safety Fund (SAFE)*, the Assembly endorsed the creation of SAFE and urged Member States, international organizations and public and private entities associated with international civil aviation to support SAFE with voluntary contributions. The Assembly also requested that Council make every effort to attract donations.

Global Safety Information Exchange

During the 37th Session of the Assembly, ICAO signed a Memorandum of Understanding on a Global Safety Information Exchange (GSIE) with the United States Department of Transportation, the Commission of the European Union and the International Air Transport Association (IATA). The purpose of the GSIE is to identify safety information that can be exchanged between the parties, as well as establish procedures for doing so. The sharing of safety information through the GSIE is expected to reduce the risk of accidents worldwide.

ICAO will act as the focal point for the collection, analysis and exchange of aviation safety information among members of the GSIE, and will also disseminate pertinent information to the global aviation community.

Integrated Safety Trend Analysis and Reporting System

ICAO launched its Integrated Safety Trend Analysis and Reporting System (iSTARS), a web-based system that places safety data from various sources on a unique platform (http://secretariat.icao.lan/anb/ISM/iSTARS). By combining different data sets featuring detailed accident and incident information, Universal Safety Oversight Audit Programme (USOAP) results and other safety-related data, system users can integrate analyses and correlate studies. Data queries and the results of analyses can be displayed on interactive maps. Although iSTARS is already an important tool for monitoring trends, the global safety information sharing platform is expected to continually evolve by acquiring additional capabilities.

Electronic aviation safety tools

To improve safety information services for the international aviation community, ICAO commenced developing a variety of electronic safety tools as well as maintaining a framework for a seamless electronic interface between safety data in various forms and on different platforms.

With regard to management of safety data, ICAO began consolidating data on fewer databases so that the information provided by States can support

seamless and inter-connected services. As a first step, existing safety data and database systems have been grouped under three main categories: ICAO Standards and Recommended Practices (SARPs), aircraft operations and geo-referencing.

One electronic service under development concerns the SARPs amendment process. SARPs Management and Reporting Tools (SMART) are composed mainly of three components: the management of amendments to annexes, e-State letter consultation, and the electronic filing of differences (EFOD). Development of a trial version of the e-State letter system regarding the amendment of SARPs and Procedures for Air Navigation Services (PANS) commenced in 2010 and is expected to undergo testing in early 2011. In addition, the EFOD system, which will serve as an alternative means for notifying ICAO of differences, was completed in November. At year's end, ICAO was developing the policy and procedures that will govern EFOD use.

The Online Aircraft Safety Information System (OASIS), a set of tools that collect and facilitate sharing of safety information on aircraft and operators, continued to evolve. One of several OASIS components, the Aircraft Registry System, was launched in November and development commenced on other components, notably the International Register of Air Operator Certificates.

The OASIS Aircraft Registry System contains aircraft registration details as specified in the Certificate of Registration described in Annex 7 — *Aircraft Nationality and Registration Marks*, as well as data concerning aircraft ownership and control. A State letter was issued to inform Member States of the applicable rules, including access procedures and the requirement for States to submit pertinent data.

Geographic information system (GIS)-related tools integrate existing geo-referencing data on a single platform that maps multiple layers of safety data and are evolving to include sub-tools for consulting and updating data and tables associated with the Air Navigation Plans (ANPs). In 2010, ICAO successfully installed the ICAO European/North Atlantic (EUR/NAT) Regional Database (international codes and routes designators (ICARD)) developed by the European Organisation for the Safety of Air Navigation (EUROCONTROL), and added a visual layer to identify and promote awareness of safety issues related to duplicate and similar sounding five-letter name codes.

Accident investigation and prevention

The tenth edition of Annex 13 — *Aircraft Accident and Incident Investigation*, incorporating the recent Amendment 13 which resulted from the recommend-ations of the Accident Investigation and Prevention (AIG) Divisional Meeting (AIG/08) held in 2008, was published in July.

In February, ICAO issued a letter highlighting AIG/08 recommendations requiring further action by States (other than those related to Annex 13 SARPs), and

requesting implementation without delay. In addition, in light of AIG/08 recommendations, the Secretariat developed guidance material on the establishment of regional accident investigation organizations as well as accident investigation policy and procedures.

The Flight Recorder Panel Working Group met in June to discuss proposals regarding flight recorders, and addressed a number of issues associated with technical requirements, including alternate power supplies for cockpit voice recorders, airborne image recorders capturing the general cockpit area, underwater locator beacons for flight recorders and for the general position of the wreckage, and lightweight recording systems for small helicopters.

New Safety Management Annex

As recommended by the ICAO High-level Safety Conference held in March/April, the Secretariat began the process of developing a new annex to the Convention on International Civil Aviation dedicated to safety management, as well as revising guidance material on the implementation of State safety programmes and safety management systems. The new annex is expected to consolidate safety management responsibilities and processes currently contained in multiple annexes. It will also facilitate the integration of complex and interrelated State safety management functions.

Runway Safety Programme

Runway safety involves multiple operational domains such as flight operations, air traffic management and aerodromes. During 2010, ICAO adopted a multidisciplinary approach to runway safety issues with the aim of identifying the interrelationships that elevate risk in the runway environment, and will host the Global Runway Safety Symposium in 2011. The global symposium is expected to identify the format and content of runway safety workshops that will examine issues specific to different regions.

Aerodromes

States were provided with assistance in establishing regulations and procedures for initial aerodrome certification and continuing surveillance through seminars and workshops held in the Middle East (MID) and the Western and Central African (WACAF) Regions.

A new document entitled *Procedures for Air Navigation Services — Aerodromes* (PANS-Aerodromes) was under development at year's end. PANS-Aerodromes will specify global procedures for addressing issues associated with aerodrome operational management. The first draft of PANS-Aerodromes is expected to be completed by the end of 2011.

Wake turbulence

The ICAO Wake Turbulence Study Group (WTSG) began updating provisions in the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) related to wake turbulence separation minima and aircraft categories, as well as assessing its future work in other wake turbulence-related matters.

Radio frequency spectrum

The Assembly reviewed the ICAO work programme on radio frequency spectrum matters leading up to the International Telecommunication Union (ITU) World Radiocommunication Conference 2012 (WRC-12), and highlighted the continuing requirement to monitor the ITU WRC process in order to ensure aviation allocations are not adversely affected by growing pressure for spectrum access by non-aviation users. Additional allocations of spectrum to non-aviation activities could increase the risk of interference with aviation services.

Fatigue Risk Management System

ICAO completed development of draft SARPs for the Fatigue Risk Management System (FRMS). Used by aircraft operators to improve the alertness of flight and cabin crew members, FRMS is based on recent scientific research as well as practical operational experience in the application of the science over the past decade. If adopted by the Council in 2011, the new FRMS-related Standards will be supported by detailed guidance material, specifically a manual on FRMS implementation for aircraft operators and an oversight manual for regulators.

Halon replacement

In light of technological developments, ICAO organized a meeting of regulators and representatives of the United Nations Environment Programme (UNEP), aircraft manufacturers, fire extinguishing systems manufacturers and airlines to review the schedule for replacing halon, an ozone depleting agent and contributor to global warming that was banned by international agreement in 1994. The participants recommended a revised timeline that was subsequently adopted by the Assembly.

At the same time, the Assembly called on the Council to establish a mandate for replacement of lavatory and hand-held fire extinguishers in newly produced aircraft by 2011 and 2016, respectively. In addition, Council was requested to mandate the replacement of halon in aircraft engines and auxiliary power units by 2014 for aircraft for which new type-certification applications have been submitted.

Language proficiency requirements

As Member States continue to face challenges in fully implementing the ICAO language proficiency requirements that became applicable on 5 March 2008, the Assembly adopted an amended resolution on language proficiency (Resolution A37-10: *Proficiency in the English language used for radiotelephony communications*) that calls for both Member States and the Council to address this situation.

Non-compliant Member States were urged by the Assembly to provide ICAO with detailed and updated language proficiency implementation plans that can then be evaluated by other States from a safety standpoint. In evaluating such measures, States were urged to implement operating decisions on a non-discriminatory basis, without considering economic advantages.

The Council was directed to monitor the implementation of language proficiency requirements. Consequently, ICAO will review updated implementation plans submitted by States to ensure they are complete and include timelines with identifiable milestones. ICAO will also collect data on the status of the implementation plans.

Next Generation of Aviation Professionals

Looking to the future, ICAO launched a programme intended to ensure that sufficient qualified aviation professionals remain employed to operate, manage and maintain the international air transport system despite industry growth and/or demographic change. In March, ICAO expanded awareness of the Next Generation of Aviation Professionals (NGAP) initiative by conducting a worldwide symposium, with support from the NGAP Task Force it created in 2009. The Task Force work programme focuses on implementing training enhancements in order to meet the future demand for qualified flight crew and air traffic management (ATM) personnel. Another priority is to develop and implement a communications strategy that will help attract a new generation of aviation professionals. Both the High-level Safety Conference 2010 and the Assembly recommended that Member States and international organizations support the work of the NGAP Task Force.

Safety oversight audits

The Assembly called for the Universal Safety Oversight Audit Programme (USOAP) to commence a transition to the Continuous Monitoring Approach (CMA) on 1 January 2011. Development of an online framework for continuous monitoring of the safety oversight capabilities of Member States was initiated in 2010, and ICAO began prioritizing related activities in Member States, including the requirement for full audits, limited audits or ICAO Coordinated Validation Missions (ICVMs) during the CMA transition period, as well as technical assistance. During a two-year transition period, extensive testing of the online

framework will be conducted by a group of Member States selected to support the CMA launch planned for January 2013.

Between August 2009 and September 2010, all ICAO Regional Offices received ICVM familiarization visits, during which the proposed processes and procedures were tested and on-the-job training was provided to regional officers who will conduct actual ICVMs. In addition, progress made in each State to address ICAO audit recommendations was validated, and the results posted on the USOAP restricted website.

During 2010, 35 Member States were audited under the USOAP comprehensive systems approach (CSA), which covers all safety-related Annexes to the *Convention on International Civil Aviation*. By the end of December 2010, 177 Members States had been audited under the six-year cycle that ended in 2010, as well as the Hong Kong and Macao Special Administrative Regions of China. Figure 1 shows the worldwide level of effective implementation of the eight critical elements of a safety oversight system, as identified during the CSA audits.

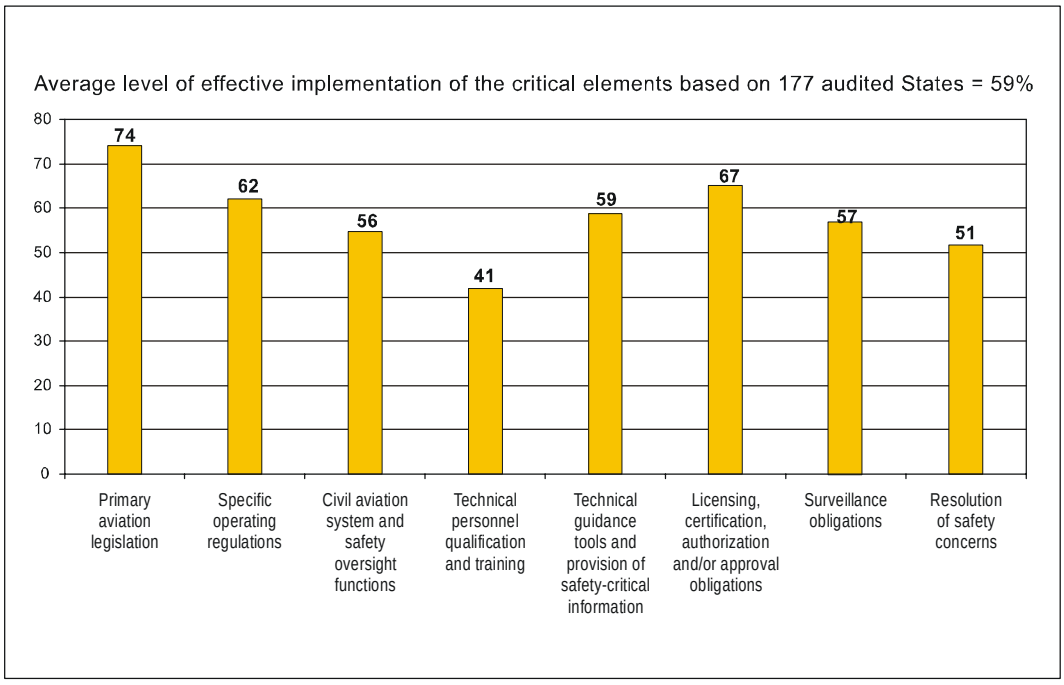


Figure 1. Global audit results — level of implementation of the critical elements of a safety oversight system

Member 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. In 2010, eight experts were seconded on a long-term basis — one each from the Bahamas, Cuba, France, Malaysia, the Republic of Korea and Saudi Arabia, and two from the United States.

A web-based USOAP training course was under development at year's end, with Phase 1 likely to be tested with a sample class in early 2011. When fully functional, the e-Learning course will provide initial and refresher training for auditors as well as ICVM training for ICAO regional officers.

Implementation Support and Development (ISD) — Safety Programme

During 2010, the ISD–Safety Programme facilitated assistance for States referred to the Audits Result Review Board (ARRB) in an effort to help such States resolve deficiencies identified by USOAP.

As part of ongoing efforts to provide better guidelines for regional cooperation on aviation safety matters, the *Safety Oversight Manual* (Doc 9734), Part B — The Establishment and Management of a Regional Safety Oversight System, was under revision at year's end.

In August, a proposal on the Cooperative Inspectorate Scheme (CIS) was made at the African Civil Aviation Commission (AFCAC)/ICAO meeting in Dakar. The proposal under consideration is intended to provide African States with concrete assistance as well as develop safety oversight expertise throughout the African Region.

Continued support was provided to the Pacific Aviation Safety Office (PASO), a regional safety oversight organization, with respect to conducting training seminars on the surveillance of foreign operators and safety oversight.

AFI Comprehensive Implementation Programme

The Assembly called for ICAO's Regional Offices in Africa to continue implementing the AFI Comprehensive Implementation Programme (ACIP), at the same time observing the need for these offices to be provided with the personnel and financial resources required to maintain ACIP activities. Member States of the Africa-Indian Ocean (AFI) Region were urged to help meet ACIP goals by accelerating the establishment of regional safety oversight organizations and accident investigation agencies, where required, and strengthening cooperation across the region in order to make optimum use of available resources.

Secretariat restructuring

Safety audit activities were transferred from the former Safety and Security Audits Branch to the newly created Continuous Monitoring and Oversight (CMO) Section in the Air Navigation Bureau; at the same time, the security audit programme was consolidated with other aviation security activities in the newly created Aviation Security Branch of the Air Transport Bureau. The restructuring enhanced coordination with regard to programmes focused on achieving ICAO's strategic objectives.

ICAO also consolidated its safety-related training activities in the new Aviation Safety Training (AST) Section in the Air Navigation Bureau. The change brings together different ongoing initiatives such as the Next Generation of Aviation Professionals (NGAP), TRAINAIR Plus Programme, the development of e-Learning activities and the Government Safety Inspectors (GSI) Programme. In addition, ICAO adopted a civil aviation training policy that applies to all safety-related training activities.

A new entity known as the State Aviation Safety Tools Unit (SAST), responsible for the development of electronic aviation safety tools, was established within the Air Navigation Bureau.

Technical cooperation projects and activities

During 2010, there were 66 national and 18 regional active technical cooperation projects contributing to further improving aviation safety around the world. Major achievements over the period included:

Africa-Indian Ocean (AFI) Region

— acquisition and installation of aircraft instruments, avionics and flight electronics for one State;

— establishment of the Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO) and the Banjul Accord Group Accident Investigation Agency (BAGAIA), and commencement of BAGASOO operations;

— development of a Civil Aviation Master Plan for one State; and

— provision of training in the area of accident and incident investigation for a major airline.

Asia and Pacific (APAC) Region

— provision of assistance with the lifting of the European Union ban excluding seven airlines of one State from entering European airspace;

— assistance to one State with the establishment of a Civil Aviation Authority;

— delivery of 54 training courses on a wide variety of safety-related subjects for States in the region;

— development and implementation of an aviation strategic plan for one State;

— provision of support to States for the preparation of USOAP audits, implementation of corrective action plans and enhancement of safety oversight programmes;

— two Regional Aviation Safety Team meetings for all Cooperative Development of Operational Safety and Continuing Airworthiness Projects (COSCAPs);

— continued assistance to States and Special Administrative Regions with the improvement of flight procedures and the establishment of the Flight Procedures Programme (FPP) Office;

— airport studies carried out in four States;

— assistance to one State in enhancing its safety oversight capabilities in the areas of aerodromes, flight safety and air navigation services;

— provision of advice to one State on the re-certification of international and domestic operators, training organizations and maintenance organizations; and

— preparation of a Wildlife Hazard Assessment to establish an effective wildlife control programme at the main airport of one State.

Caribbean and South American (CAR/SAM) Region

— assessments of the organizational structure of seven States;

— procurement of rescue and fire fighting equipment spares and protective clothing accessories for three States;

— provision of an aircraft maintenance programme, supervision of the inspection and general overhaul of several aircraft for one State;

— transfer of over 400 national project staff to the cadre of the Civil Aviation Authority of one State;

— an International Seminar on Safety Management Systems with the participation of 16 States; and

— assistance in the implementation of Safety Management Systems and State Safety Programmes in two States.

Europe and Middle East (EUR/MID) Region

— development of safety standards, procedures and long-term safety programmes for 19 States and enhancement of technical and managerial skills of their national personnel;

— strengthening and modernization of the civil aviation administrations of two States;

— certification of the national airline of one State to comply with international regulations and Standards;

— procurement of rescue and fire fighting equipment spares and protective clothing accessories for two States; and

— delivery of one training course on a wide variety of safety-related subjects for the Gulf 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

During 2010, the focus was on finalizing a new comprehensive strategy for enhancing aviation security worldwide, conducting audits of Member States' security oversight capabilities, and providing States with assistance in addressing security deficiencies, including capacity-building activities. Of particular note, Member States adopted an Assembly Declaration reaffirming their commitment to counter the evolving threat to civil aviation.

Countering new and existing threats to aviation security

The 37th Session of the ICAO Assembly unanimously adopted the Declaration on Aviation Security in light of the continuing threat to civil aviation. The Declaration represents a high-level commitment by States to strengthen aviation security worldwide, principally by enhancing international cooperation. It defines key areas that call for proactive and collective action.

The Assembly Declaration was shaped substantively by the results of a series of Ministerial-level regional conferences in which ICAO participated during the first half of 2010. The conferences, held in Abu Dhabi, Abuja, Mexico City and Tokyo, paid special attention to information collection and sharing, aviation security technology, international Standards and security assistance. Each conference issued a declaration affirming the commitment to fight terrorism.

The Assembly stressed the importance of implementing the ICAO Comprehensive Aviation Security Strategy (ICASS) approved by the Council in February. Comprised of seven focus areas, the new strategy allows resources to be allocated more efficiently to critical objectives, including the requirement to address new and existing threats. ICASS entails a continuation of security audits of Member States while focusing more intently on addressing security shortcomings through assistance to States. Greater reliance is placed on capacity-building initiatives that address aviation security concerns on a permanent basis.

During its twenty-first meeting in March, the Aviation Security Panel considered the threat and risk environment in light of the attempted sabotage of Northwest Airlines Flight 253 on 25 December 2009. Provisions in Annex 17 to the Chicago Convention were updated and strengthened. Concluding that the threat from liquid explosives remains a concern, the Panel recommended that a Secretariat Study Group develop guidance on the implementation of screening technologies for detecting hazardous substances in liquids, aerosols and gels (LAGs); consequently, an informal meeting on this subject was held in Geneva in November.

With regard to air cargo security, the Study Group on Supply Chain Security advanced its second meeting to December as a result of the thwarted plot to sabotage two cargo aircraft in October. Following the discovery of improvised explosive devices concealed in freight shipments at airports in the United Arab Emirates and the United Kingdom, ICAO issued an electronic bulletin recommending that States conduct national risk assessments and mandatory screening of certain categories of cargo, in particular cargo from unknown shippers. States were also urged to use various and multiple screening methods to inspect cargo that pose a higher risk because of screening limitations.

A workshop on the next generation screening process for passengers and cabin baggage was conducted in Geneva in collaboration with the International Air Transport Association (IATA) and the Airports Council International (ACI) in November. The meeting reviewed planned and ongoing initiatives for developing a “checkpoint of the future” that will improve passenger flow as well as provide effective security. In particular, it examined how certain elements, such as the use of passenger data for identifying high-risk passengers, might be incorporated in the screening process.

The first joint meeting of the International Explosives Technical Commission (IETC) and the Ad Hoc Group of Specialists on the Detection of Explosives (AH/DE) convened in Montréal in November. The meeting reviewed progress made in testing, implementing and deploying advanced security screening technologies, including body scanners. The joint meeting was presented with information on different national initiatives in the area of cargo security, among these the deployment of canines and other screening methods. The explosives experts concluded that trace detection technology continues to play an important role in airport screening, and noted that further research to validate when and how this technology can be used for air cargo is under way in many States.

In January, the Secretariat established a database on the secure Aviation Security (AVSEC) website in order to disseminate information on acts of unlawful interference (AUI) in an efficient and effective manner, instead of distributing these data by way of an annual print summary. States were encouraged to review the content on a regular basis and provide ICAO with all pertinent information concerning any act of unlawful interference for inclusion in the database. Research is facilitated by providing detailed yearly results dating from 1970, with AUI trends updated automatically as new data are entered.

Amendment 12 to Annex 17 — *Security*

In November, the Council adopted Amendment 12 to Annex 17 — *Security*, as recommended by the Committee on Unlawful Interference and the Aviation Security Panel. Amendment 12 updates and strengthens aviation security provisions, particularly in relation to staff screening, security equipment capabilities, cyber threats and air cargo. The new and revised provisions become effective on 26 March 2011 and are expected to become applicable on 1 July 2011.

Aviation Security Point of Contact (PoC) Network

Following the attempted sabotage on 25 December 2009, ICAO used the secure Aviation Security (AVSEC) Point of Contact (PoC) Network to communicate information and recommendations to participating States, numbering 99 members at the time. States were encouraged to conduct a risk assessment and implement appropriate screening measures in light of the incident, and were reminded of the need for cooperation in all matters related to aviation security. This message was followed, on 6 January, by an electronic bulletin offering the same information to all Member States.

During the year, ICAO actively promoted the use of the PoC Network as an effective means of communication among States concerning imminent threats to civil aviation. Non-participating States were encouraged to join, and by year's end the number of Network members had increased to 172 States.

To determine the effectiveness of the Network, a system test was successfully conducted within the Asia/Pacific Region in August, and similar tests were conducted in most other ICAO regions by year's end.

Facilitation Programme

The sixth meeting of the Facilitation Panel (FALP/6), held at ICAO Headquarters in May, recommended the introduction of a new Standard in Annex 9 — *Facilitation*, obliging all States to adhere to internationally recognized requirements for the transmission of advance passenger information (API) data. The Facilitation Panel also agreed on a new set of guidelines for the passenger name record (PNR) data exchange that will serve to help States implement their national PNR programmes. There was also agreement to commence work, on an urgent basis, on developing new specifications for advanced data exchange programmes in coordination with the World Customs Organization (WCO) and the International Air Transport Association (IATA).

The Declaration on Aviation Security urged Member States to promote the increased use of cooperation mechanisms among themselves and with the civil aviation industry to ensure the early detection of threats and dissemination of information on threats to civil aviation. It cited the collection and transmission of advance passenger information (API) and passenger name record (PNR) data as one such mechanism, while acknowledging the importance of protecting passengers' privacy. In this regard, an updated version of the *Guidelines on Advance Passenger Information (API),* developed jointly by ICAO, WCO and IATA, was published. The "best practice" guidelines aim to assist States seeking to implement national API programmes, and help ensure API systems are harmonized internationally.

The *Guidelines on Passenger Name Record (PNR) Data* (Doc 9944) was also published in 2010. In summary, these guidelines establish uniform measures for PNR data transfer and subsequent data handling by the States concerned. They also assist States in designing data requirements and procedures.

The first edition of the *Facilitation Manual* (Doc 9957) was finalized and is expected to be published in 2011. The FAL Manual contains detailed explanations of the Annex 9 SARPs from a historical and current perspective. The manual was designed to increase awareness of air transport facilitation issues and concepts, improving the results of States' FAL programmes and increasing conformance with Annex 9. It also serves as an instructional or reference tool for States and other interested users, in terms of preparing and providing training on the various immigration, health, customs and quarantine aspects covered by Annex 9.

Machine Readable Travel Document (MRTD) Programme

More than 180 States had issued machine readable passports (MRPs) in conformity with ICAO specifications by 1 April 2010, and another five States achieved compliance by year's end.

The ICAO Secretariat continued to work closely with the Implementation and Capacity Building Working Group (ICBWG) of the Technical Advisory Group on Machine Readable Travel Documents (TAG/MRTD) in identifying the need for assistance and MRTD capacity-building support activities. The main focus of the ICAO/ICBWG efforts in 2010 was to assist States in implementing MRPs or ePassport issuance systems. In addition, support was provided for States' efforts to address the security vulnerabilities associated with the evidence of identity required to obtain such travel documents (e.g. birth certificates, national ID cards, etc.). Assistance was also given with regard to introducing automated migrant processing systems equipped with passport readers.

Among the capacity-building and promotional activities undertaken in 2010 were:

— technical consultations and a workshop on ePassport issuance, conducted jointly with the Organization for Security and Co-operation in Europe (OSCE), in Uzbekistan;

— a workshop on travel document security, conducted jointly with the Organization of American States/Inter-American Committee Against Terrorism (OAS CICTE), in Uruguay;

— technical consultations with the International Criminal Police Organization (Interpol) on enhancing joint travel document security activities;

— a workshop on promoting the ICAO Public Key Directory (PKD), conducted jointly with OSCE and the ICAO PKD Board, in Vienna for 53 OSCE Member States;

— a regional seminar on MRTDs and biometrics for States of the South American Region (Uruguay);

— an assessment mission, conducted jointly with OSCE and the International Organization for Migration (IOM), with regard to ePassport issuance, integrity and identity management in Tajikistan; and

— a regional seminar on MRTDs, biometrics and security standards for States of Africa and the Middle East (Mozambique).

In addition to more emphasis on capacity-building activities in 2010, including intensified efforts to raise funds from donors for capacity-building projects, the MRTD Programme developed a training initiative strategy and the ICBWG began preparing training modules in close cooperation with Frontex, the European Union's border control agency.

The Declaration on Aviation Security urged Member States to promote travel document security and use the ICAO Public Key Directory, in conjunction with biometric information, to validate travel documents. It called on States to regularly report lost and stolen passports to the Interpol Lost and Stolen Travel Documents Database in order to prevent travel documents from being used in acts of unlawful interference against civil aviation. States were also urged to share best practices and information related to document security and fraud detection.

With the adoption of Resolution A37-20: *Consolidated statement of continuing ICAO policies in the air transport field*, the ICAO Assembly called for the TAG/MRTD New Technologies Working Group (NTWG) to expand its work programme to include the development of guidelines for the evidence of identity required for passport applications. Another key activity called for by the resolution is an update of the specifications for eMRPs and other MRTDs in light of technological advances.

The TAG/MRTD NTWG continued in 2010 to assist the Secretariat in developing and maintaining the specifications contained in *Machine Readable Travel Documents* (Doc 9303), developing new MRTD specifications and issuing related guidance material. Regular updates of Doc 9303 were provided through Supplements (Release 8, formally approved by TAG/MRTD in June, updated all parts of the document). Both Doc 9303 and the current Supplement are available for downloading from the ICAO MRTD website (www.icao.int/mrtd).

The MRTD Symposium held in Montréal in November was attended by 574 participants from 73 Member States and 10 international organizations. Presentations were made by Interpol, the United Nations Counter-Terrorism Implementation Task Force (CTITF) and senior representatives of States and

various international and regional organizations. The event highlighted the role of the MRTD Programme in combating terrorism and trans-border crime.

Since its establishment in March 2007, the number of participants in ICAO's Public Key Directory has grown to 23 Member States, with more expected to join.

Aviation security audits

The Assembly expressed unanimous support for the continuation of the Universal Security Audit Programme (USAP) as an essential part of the newly adopted ICAO Comprehensive Aviation Security Strategy. The programme, launched in 2002, is currently focused on the capacity of Member States to oversee aviation security activities under their jurisdiction.

In 2010, ICAO aviation security audit teams completed 39 audits, including audits of 38 States and one Special Administrative Region (SAR). By year's end, a total of 94 second-cycle audits had been conducted as well as an assessment of the European Commission's aviation security inspection system. Figure 2 shows the results of these audits at the global level as they relate to the implementation of the critical elements of an aviation security oversight system.

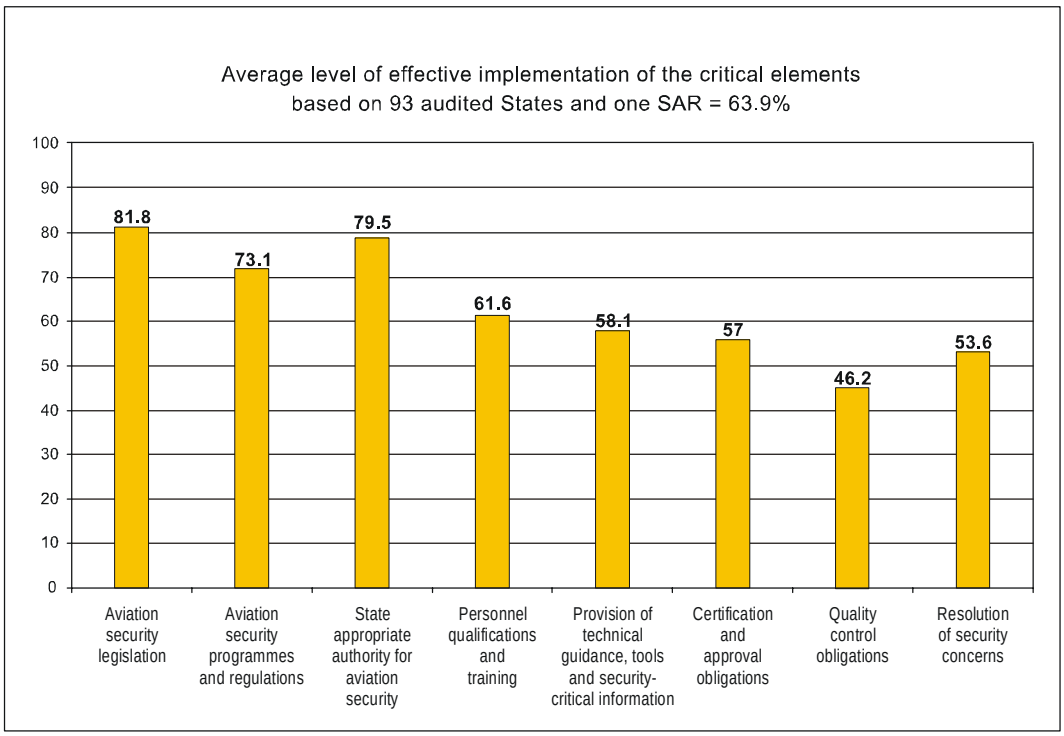


Figure 2. Global audit results — level of implementation of the critical elements of a security oversight system

Two USAP Auditor Training and Certification Courses were carried out during the year, one in the Asia/Pacific Region and another in the South American Region.

In February, the Council approved a definition for the term “significant security concern” (SSeC), as well as the associated mechanism to address such SSeCs in a timely manner. A consequential amendment to the model Memorandum of Understanding (MoU) between ICAO and States regarding aviation security audits was subsequently approved by the Council to reflect the new mechanism.

Member 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 USAP activities. In 2010, three experts were seconded to ICAO on a long-term basis, from France, Switzerland and the United States. In addition, 37 Member States and two regional organizations seconded experts on a short-term basis to participate as team members in USAP audits.

Implementation Support and Development (ISD) — Security Programme

In light of Assembly Resolution A37-17: *Consolidated statement on the continuing ICAO policies related to the safeguarding of international civil aviation against acts of unlawful interference*, ICAO continues to coordinate and facilitate assistance for States that need to improve their security oversight and airport security as identified in USAP reports, as well as provide standardized aviation security training. Such activities are carried out under the ISD-Security Programme.

In addition to assistance activities, in 2010 the ISD-Security Programme promoted global cooperation and participated in the establishment of regional aviation security organizations. Efforts were also made to promote the exchange of security assistance information, greater transparency between States and the establishment of partnerships and alliances with aviation security stakeholders.

Short-term assistance in implementing Annex 17 Standards and Recommended Practices (SARPs) was provided to 12 States. This consisted of guidance in developing and implementing States’ corrective action plans, in-country AVSEC training, and completion of an AVSEC crisis management exercise.

During the Regional Conference on Aviation Security in Abuja in April, discussions focused on strengthening and implementing the work programme of the African Roadmap of Aviation Security, initially developed in 2007. The African Civil Aviation Commission (AFCAC) presented an update on the Roadmap, which now incorporates the AFCAC aviation security work programme for the next triennium; this includes development of various AVSEC programmes, including focus on addressing training and equipment needs.

In May, a regional seminar was conducted in Port of Spain with the objective of promoting sustainable development in aviation security and encouraging an exchange of views on developments in the North American, Central American

and Caribbean (NACC) and South American (SAM) Regions, including inter-regional cooperation among States. The outcome of the seminar was presented to participants of the NACC/SAM Regional Aviation Security and Facilitation Group (AVSEC/FAL/RG) meeting.

In October, ICAO and the Government of Canada signed a Counter-Terrorism Capacity Building Programme Grant Arrangement in order to continue with the third phase of the ICAO/Canada Security Awareness Training Programme.

The regional partnership programme for the Americas assists NACC and SAM States in improving aviation security systems and implementing Annex 9 and Annex 17 SARPs throughout the 2011-2013 triennium.

AVSEC training continues to be a major focus of the ISD-Security Programme. Activities included the development and upkeep of training material as well as oversight and support for 20 Aviation Security Training Centres (ASTCs) worldwide. Two of these ASTCs — located in Toulouse and Seoul — were added to the network during 2010 and will begin operating in 2011.

Twenty-nine ICAO-sponsored courses and workshops were conducted within the ASTC network during 2010; included were the Cargo Security Course and National Inspectors Course (NIC), as well as workshops on the National Civil Aviation Security Training Programme (NCASTP), National Civil Aviation Security Quality Control Programme (NCASQCP), Screener Certification Programme (SCP) and Airport Security Programme (ASP). A total of 530 AVSEC specialists participated in the courses and workshops.

Seven AVSEC Training Packages (ASTPs) were available for sale: Basic, Cargo, Crisis Management, Exercise, Instructors, Management and National Inspectors. ASTP Crisis Management and ASTP Exercise were updated in 2010, thus completing an update of the entire series of ASTPs during the 2008-2010 triennium. Additionally, material for five workshop topics was available for presentation through the ASTC network or directly to States. A new assistance workshop named “Threat Analysis and Risk Management” was being finalized at year’s end.

In response to growing demand for AVSEC training, three Instructor Certification Courses were conducted in 2010. Thirty-one instructors from all regions were certified, increasing the worldwide total to 178 certified AVSEC instructors who teach primarily throughout the ASTC network.

With the goal of increasing professionalism within the AVSEC discipline worldwide, ICAO continues to support the Professional Management Course (PMC), a predominantly web-based programme utilizing an innovative online classroom approach developed in collaboration with the John Molson School of Business of Concordia University in Montréal. The PMC provides AVSEC management personnel with new managerial skills, a greater understanding of the application of the Chicago Convention, Annex 17 SARPs and the ICAO *Aviation Security Manual*, and promotes intra- and inter-regional cooperation. As

of November 2010, a total of 317 participants representing 75 States have obtained the PMC certificate, up from 227 graduates from 59 States in November 2009.

Secretariat restructuring

ICAO's various aviation security activities were consolidated within a newly created Aviation Security Branch in the Air Transport Bureau, under the new post of Chief, AVSEC Branch, to strengthen the emphasis on aviation security, improve coordination of AVSEC related activities and increase the effectiveness of the Organization's efforts to enhance security globally. The new Branch is comprised of three Sections that focus on policy development, security audits and assistance activities, respectively.

Technical cooperation projects and activities

During 2010, there were 21 national and two regional active technical cooperation projects which assisted civil aviation administrations and international airports to improve their security systems. Major achievements over the period included:

Asia and Pacific (APAC) Region

— continued assistance to 23 States and Special Administrative Regions in the field of aviation security through the regional Cooperative Aviation Security Programme – Asia/Pacific (CASP-AP).

Caribbean and South American (CAR/SAM) Region

— assessment of airport security in one State; and

— procurement of airport security systems for three States.

Europe and Middle East (EUR/MID) Region

— assessment of airport security in two States; and

— procurement of airport security equipment for 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

The year 2010 proved to be a crucial year for ICAO in terms of exercising its global leadership on international aviation environmental issues, particularly those related to climate change.

Committee on Aviation and Environmental Protection (CAEP)

In February, ICAO's Committee on Aviation Environmental Protection (CAEP) held its eighth meeting (CAEP/8) to further develop the various technical measures for reducing and limiting the environmental impact of aviation, and to establish priorities for the next triennium. Standards, policies and guidance material on measures related to aircraft noise and engine emissions were developed with a focus on technological improvements, operating procedures, efficient air traffic management, appropriate airport and land-use planning and the use of market-based options.

CAEP/8 issued 19 recommendations, including two proposing amendments to Annex 16 — *Environmental Protection*, Volumes I and II. The proposed changes concerning Annex 16, Volume I were of a detailed and technical nature aimed at updating and improving certification procedures, while amendments to Volume II included, among a wide range of technical updates, a new Standard for emissions of nitrogen oxides (NO_x). The proposed Standard improves on the current CAEP/6 Standard by up to 15 per cent, with an effective date of 1 January 2014 and production cut-off date of 31 December 2012 for aircraft engines not meeting the current CAEP/6 NO_x Standard.

CAEP/8 updated its assessment of the present and future impact of aircraft noise and aircraft engine emissions and the interrelationship of noise, emissions that affect local air quality and emissions that affect the global climate, on the basis of evaluations using an unconstrained forecast that did not account for alternative fuels usage. In absolute terms, the total global population exposed to aircraft noise and the total global aircraft emissions affecting local air quality and global climate are expected to grow. Aviation's noise and emissions footprints are predicted to increase, however, at a rate slower than the demand for air travel, and efficiency is expected to improve on a per-flight basis.

The first Steering Group meeting to prepare for CAEP/9 was held in Toulouse in November. Key topics included a review of progress on developing a carbon dioxide (CO_2) emissions Standard and an update on the outcome of the 37th Session of the Assembly and the possible resultant tasks. In addition, the technical working groups were provided with guidance on all tasks currently under way. The main challenge for CAEP/9 is to make progress on several high-priority tasks in parallel, including the development of a CO_2 emissions Standard,

certification requirements for Particulate Matter, and the completion of studies examining the need for more stringent noise Standards.

Environmental Colloquium

In May, ICAO convened its third Environmental Colloquium to review the latest assessments on aviation emissions and highlight possible solutions to their environmental impacts in advance of the Assembly. A tutorial on the first day familiarized participants with the vocabulary and concepts used in the description, measurement, regulation and management of aviation greenhouse gas (GHG) emissions. The Colloquium also focused on the key developments emanating from the ICAO High-level Meeting on International Aviation and Climate Change held in 2009, the ICAO Conference on Aviation and Alternative Fuels (held in late 2009), the 2009 United Nations Climate Change Conference (Copenhagen Summit), which included the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change (UNFCCC), and CAEP/8. The event attracted participants from all regions, including representatives of Member States, international organizations, the aviation industry and academic/research institutions.

Amendments to Annex 16, Volumes I and II

State letters on the proposed revisions to Annex 16 — *Environmental Protection*, Volumes I and II, were distributed in June following a preliminary review of the draft amendment by the Air Navigation Commission (ANC). Comments by States on the proposed changes were reviewed by the ANC in November. Provided the proposed changes are approved by Council, the new Standards and Recommended Practices (SARPs) are expected to become applicable in November 2011.

The ICAO Assembly

Environmental issues featured prominently on the agenda of the 37th Session of the Assembly. Member States reviewed and endorsed the work undertaken by ICAO on aircraft noise and local air quality, and adopted a resolution on these aspects of aviation environmental protection, Resolution A37-18: *Consolidated statement of continuing ICAO policies and practices related to environmental protection — General provisions, noise and local air quality*.

Given differing views on the issue of international aviation and climate change, an informal group with appropriate geographical representation was established to draft the associated resolution. The participants undertook substantive discussions in a spirit of cooperation, and bridged most of the divergent viewpoints, allowing the Assembly to adopt Resolution A37-19: *Consolidated statement of continuing ICAO policies and practices related to environmental protection — Climate change*.

The Assembly requested that the Council attempt to address the outstanding issues highlighted by Resolution A37-19, among them reservations expressed by some States over the implementation of the medium-term global aspirational goal and market-based measures, including the *de minimis* provision. The Council was also requested to assist States with developing their environmental action plans, and was urged to encourage progress in developing alternative aviation fuels.

Resolution A37-19 reflected the collective determination of ICAO Member States to continue to contribute to global efforts to address climate change.

ICAO Environmental Report

ICAO published its second Environmental Report in September, with a focus on aviation and climate change. This authoritative reference document provides a comprehensive account of CAEP's work, including a synthesis of the key developments emerging from CAEP/8, and serves to acknowledge and publicize the work of experts from CAEP, the aviation industry and academia. The latest report introduced new subjects and provided a status report on aviation's contribution to climate change, improvements in aircraft technology, operational measures, economic instruments, development of alternative fuels and cooperation with other United Nations bodies.

The Environmental Report 2010 was further updated to incorporate the outcomes of the Assembly, and it is available on the ICAO website.

Cooperation with other United Nations bodies

ICAO's work in the field of environmental protection, and notably climate change activities, involves cooperation with a number of other United Nations bodies, in particular the UNFCCC and its working groups. During the year, ICAO participated in meetings of the Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol (AWG-KP), the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), and the Subsidiary Body for Scientific and Technological Advice (SBSTA).

ICAO also participated in the Climate Change Conference in Cancun in November/December, which encompassed a number of other meetings, notably the 16th Conference of the Parties (COP 16) to the UNFCCC, the 33rd Session of the SBSTA, the 15th Session of the AWG-KP and the 13th Session of the AWG-LCA. ICAO submitted a report and provided a statement to SBSTA, outlining the achievements of the 37th Session of the Assembly.

During the Cancun Conference, ICAO and the International Maritime Organization (IMO) promoted awareness of transport-related environmental initiatives, under the theme "Emissions from International Transport: Global Solutions for Global Industries". ICAO's participation focused on the achievements of the 37th Session of the Assembly.

ICAO was also represented at meetings of the United Nations Environment Management Group (EMG), COP 16 coordination meetings conducted by the United Nations High-Level Committee on Programmes (HLCP) Working Group on Climate Change, and meetings of IMO experts group on market-based measures for international shipping.

ICAO Carbon Emissions Calculator

Under an agreement signed with the Amadeus Group, a global supplier of information technology services for the travel and tourism industry, ICAO began to supply Amadeus with data from its Carbon Emissions Calculator. By using this service, Amadeus's worldwide customer base can estimate the carbon footprint associated with air travel.

ICAO continued to improve the Calculator, available on its website since 2008, by updating the methodology that applies the best available industry data to take account of factors such as aircraft type, routing and payload. An improved Version 3 of the methodology was released in August and is available on the ICAO website.

ICAO's carbon inventory and climate neutral initiative

As part of the United Nations initiative to achieve climate neutrality throughout the United Nations system, ICAO updated its carbon inventory during 2010 and estimated the Secretariat's carbon footprint for 2009 using the United Nations Environment Programme (UNEP) Greenhouse Gas Emissions Calculator as well as ICAO's Carbon Emissions Calculator. The total annual ICAO carbon footprint was computed as approximately 5 000 metric tonnes of CO_2, with air travel (45%) by staff and consumption of electricity (36%) accounting for most of the emissions.

A United Nations working group focused on achieving climate neutrality proposed that all United Nations agencies prepare a publicly available emissions reduction plan (ERP) for the 2011-2013 period. In addition, the United Nations Joint Inspection Unit issued a report, *Environmental Profile of the United Nations System Organizations*, recommending that United Nations agencies adopt management practices typical of an environmental management system (EMS). Specific recommendations were addressed to the United Nations General Assembly and the United Nations Secretary-General on reporting progress on the climate neutral initiative.

Outreach and public awareness activities

Promotional material was produced to highlight ICAO's achievements in the area of aviation and the environment, as well as decisions of the 37th Session of the Assembly with regard to environmental protection. A new video, banners and a

brochure were posted on the ICAO website and were also used to showcase ICAO's achievements at COP 16 (Cancun Conference) in December.

The Environmental Branch website was extensively revised and enhanced. The topics featured are the global framework on alternative fuels for aviation, adaptation, financing, local air quality, market-based measures, modelling and databases, aircraft noise, operational measures, the programme of action adopted by the High-level Meeting on International Aviation and Climate Change, the outcome of the 37th Session of the Assembly and the United Nations Climate Neutral Initiative.

Secretariat restructuring

As a reflection of the growing prominence of environmental issues, the Environment Branch was established within the Air Transport Bureau in January, under the new post of Chief, Environment Branch. The restructuring allows ICAO to allocate resources more effectively to activities that address climate change and other environmental issues such as airport noise and local air quality.

Voluntary support for ICAO's environmental work

France and Italy continued their support for ICAO's work in the environmental area by seconding two Associate Environmental Officers and one Junior Professional Officer, respectively. The Environment Programme also benefited from the secondment of three interns from Romania, the United Arab Emirates and Women in Aviation International (ICAO — Training Scholarship).

Technical cooperation projects and activities

During 2010, there were 11 national active technical cooperation projects related to environmental protection. The major achievements over the period included presentation of an International Seminar on Environmental Protection and Airport and Aeronautical Infrastructure with the participation of 17 States of the Caribbean and South American (CAR/SAM) Region.

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

Aviation operations need to be as efficient as possible in order to accommodate industry growth and address environmental concerns. A number of developments in 2010 contributed to air transport efficiency by facilitating an increase in traffic, reducing operational costs or reducing fuel consumption, and hence emissions.

Global Air Navigation Plan

ICAO began to revise the Global Air Navigation Plan (GANP), a strategic document that focuses effectively on the implementation of a global air traffic management (ATM) system. The enhanced document will outline a step-by-step set of globally harmonized operational upgrades that will be coordinated with States through a series of events planned for 2011 and 2012, at the same time recognizing that the pace of development and implementation within different States and regions will vary.

By producing roadmaps that support the Global ATM Operational Concept, the revised GANP will bring some certainty to investment decisions related to infrastructure, equipage and regulatory approval required by States, air navigation service providers, aerodromes and aircraft operators. The GANP will identify global operational trials that can serve to validate operational improvements; such trials will advance the development of procedures as well as assist participating States in meeting traffic growth demands.

Performance-based navigation implementation

Performance-based navigation (PBN) activities focused mainly on implementation, and ICAO carried out the first in a series of “Go-Team” visits to States requiring assistance in this regard. In addition, PBN airspace design workshops were held in four different regions and preparations were made to develop an ICAO PBN operational approval course.

ICAO published a new manual on continuous descent operations. Two workshops associated with the *Continuous Descent Operations (CDO) Manual* (Doc 9931), were also conducted. PBN-supported continuous descents have the potential to reduce fuel consumption significantly, and hence may be an important factor in reducing aircraft emissions.

To support satellite-based augmentation (SBAS) technology, the required navigation performance (RNP) approach navigation specification was amended to include SBAS equipment, and States were informed of the amendment through a State letter.

The Asia-Pacific Flight Procedure Programme entered full operation in 2010. Under the programme, PBN procedure design courses were conducted and several implementation projects were initiated by States.

Navigation systems

Amendment 85 to Annex 10 — *Aeronautical Telecommunications*, which became applicable on 18 November 2010, contained new provisions enabling global navigation satellite system (GNSS) Category I approach and landing operations over wide areas without additional ground radio navigation aids.

Implementation of the amendment produces significant benefits for safety and efficiency. Improvements will be evident in both the short term, for certain areas served by satellite-based augmentation systems, and in the longer term on a global basis when additional satellite constellations become available. A further amendment to Annex 10, reflecting the initial experience gained with the ongoing technical implementation of the GNSS ground-based augmentation system, is planned.

Air traffic surveillance

New provisions for the operation of multilateration systems, a cost-effective alternative to air traffic surveillance, were included in Amendment 85 to Annex 10 — *Aeronautical Telecommunications*. The initial set of provisions enable the harmonious development of airborne surveillance applications based on automatic dependent surveillance-broadcast (ADS-B In). The amendment also included an enhanced collision avoidance logic in the airborne collision avoidance system (ACAS) Standards and Recommended Practices (SARPs).

In support of new surveillance systems, the *Aeronautical Surveillance Manual* (Doc 9924) was finalized and is expected to be published in 2011.

Separation minima

In a continuing effort to provide air traffic controllers and airspace designers with more performance-based navigation (PBN)-specific separation minima, new separation criteria were incorporated in the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) in November. Specifically, ICAO introduced separation minima for RNP-approved aircraft operating in en-route as well as terminal environments.

Flight and flow information for a collaborative environment

ICAO developed an ATM concept to describe how information from aircraft can be integrated with ground system information to enable trajectory-based

operations. Known as flight and flow information for a collaborative environment (FF-ICE), FF-ICE is necessary to implement the interoperable, global and seamless ATM system envisaged by the Global ATM Operational Concept, thus meeting the aviation community's expectations for performance in key areas such as safety and predictability. ICAO will invite stakeholders to comment on the concept in 2011.

ICAO flight plan changes

As of 2010, all ICAO regions were following a common plan for implementing ICAO flight plan changes. Target dates continue to be tracked by a dedicated database known as the Flight Plan Implementation Tracking System (FITS). In addition to gathering information on progress with flight plan implementation by Member States, FITS provides a forum for related documentation and discussion.

The efficiencies envisaged primarily involve aircraft flight profiles. Following implementation of the flight plan changes, the enhanced capabilities of aircraft can be communicated at the flight planning phase to the air traffic management system. This will facilitate assignment of suitable flight profiles as well as management of airspace.

Civil/military cooperation

The Assembly adopted an amended resolution that is concerned in part with coordination of civil and military air traffic. Resolution *A37-15: Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation, Appendix O*, emphasized the commitment of Member States to enhancing cooperation between civil and military authorities with the aim of using airspace more efficiently.

In terms of guidance material, ICAO developed a circular entitled *Civil/Military Cooperation in Air Traffic Management* (Cir 330). The Secretariat also initiated plans for a series of regional workshops that will promote awareness of civil/military coordination issues. The five workshops, to be presented with the support of civil and military partners, will be conducted during the 2011-2013 period.

Manual for regional reduced vertical separation minimum (RVSM) monitoring agencies

To improve coordination among regional agencies responsible for monitoring operations in airspace where RVSM has been introduced, ICAO completed development of a manual on how such agencies can collect, analyse and exchange RVSM data among themselves and with civil aviation authorities. The manual of *Operating Procedures and Practices for Regional Monitoring Agencies*

in Relation to the Use of a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 Inclusive (Doc 9937), also defines the duties and responsibilities of regional monitoring agencies with regard to RVSM operations.

Aviation meteorology

In response to the eruption of the Eyjafjallajökull volcano in Iceland in April 2010 and the unprecedented interruption of air traffic caused by the extensive volcanic ash cloud in the European and North Atlantic Regions, ICAO reviewed and updated the volcanic ash contingency plans for the regions affected. ICAO also established the International Volcanic Ash Task Force to develop a global safety risk management framework that will make it possible to determine the safe levels of operation in airspace contaminated by volcanic ash. The task force addresses issues of a multi-disciplinary nature encompassing air traffic management, airworthiness, aeronautical meteorology and atmospheric sciences.

Transition to aeronautical information management

A number of accomplishments helped realize the objectives set out in the ICAO roadmap for transition from aeronautical information services (AIS) to aeronautical information management (AIM), which relies on digital data. These included adoption of new or revised SARPs relating to the use of automation enabling digital data exchange, automated pre-flight information systems, electronic aeronautical information publications, quality management systems, electronic terrain and obstacle data, and the operational use of the public Internet. Changes to these provisions mark the beginning of Phase 2 of the transition process, where the main focus is on establishing data-driven processes in the production of current AIS products.

Sustainable development

In light of aviation's impact on climate change, and in an effort to better guide States in implementing projects relevant to the environment, ICAO began developing a tool that will measure the benefits of operational improvements and will support decision making. The future tool will help States verify benefits in terms of fuel savings related to any planned or new operational improvement.

Air services negotiations

ICAO conducted the third Air Services Negotiation Conference (ICAN/2010) in Montego Bay, Jamaica, with 195 delegates from 39 States and territories in attendance, as well as representatives of two regional organizations. Over the four days of ICAN/2010, more than 200 formal and informal bilateral meetings were held, leading to the conclusion of over 60 agreements and arrangements, including "open skies" agreements.

For the first time, ICAO offered a pre-conference workshop on negotiation skills which attracted over 50 participants.

Economics of airports, air navigation services and forecasting

An ICAO symposium on airport and air navigation services infrastructure financing, held in Maputo, Mozambique in November/December with support from the African Civil Aviation Commission (AFCAC), observed the need for improved international cooperation in the field of air navigation services, and called on States to make better use of existing ICAO guidance as well as mechanisms for infrastructure financing. Discussions focused on various financing mechanisms, and ICAO encouraged States to implement its policies in the air transport field, in particular those on user charges and taxation, so as to assist airports and air navigation services in obtaining sufficient funds for infrastructure development.

Meetings to develop traffic forecasts were held in Kingston, Jamaica and at the ICAO Asia and Pacific Office in Bangkok, and focused on future passenger volume and aircraft movements in the respective regions. In addition, a regional workshop on traffic forecasting and economic planning was conducted at the ICAO Middle East Office in Cairo, and provided States in the region with practical experience in applying forecasting methods and evaluating planning issues.

In the field of training, three courses on user charges were conducted under the Airport Management Professional Accreditation Programme (AMPAP) developed jointly by ICAO and the Airports Council International (ACI).

Technical cooperation projects and activities

During 2010, there were 79 national and 16 regional active technical cooperation projects contributing to further improving the efficiency of air transport operations. Major achievements over the period included:

Africa-Indian Ocean (AFI) Region

- review of the detailed design of an international airport;
- development of a Request for Proposal (RFP) for the construction of apron and connecting taxiways in one State;
- completion of an aeronautical study to establish the obstacle limitation surfaces at one international airport; and
- provision of training to five national air traffic controllers (ATC) in one State.

Asia and Pacific (APAC) Region

— development of Action Plans for the provision of continued aeronautical meteorological services and facilities for eight States;

— development of operator and performance-based navigation (PBN) manuals for two States;

— preparation of a Request for Proposal (RFP) for domestic aviation services and recommendations to the Minister for Aviation in one State;

— preparation of a technical-economic feasibility study for a new international airport in one State; and

— procurement of a primary and secondary radar system, airport runways and air navigation systems for two States.

Caribbean and South American (CAR/SAM) Region

— purchasing and installation of 28 very small aperture terminals (VSAT) stations in one State;

— initiation of the second phase for the implementation of eight radar systems in one State;

— development of airport master plans for two new airports in one State;

— design, construction and improvement of access roads to the passenger terminal of one international airport;

— civil and electrical works carried out for airports in several States;

— provision of maintenance to one international airport as well as an apron expansion, construction of a taxiway, procurement of embarkation tunnels, a primary surveillance radar and an aerodrome control tower;

— presentation of an International Seminar on Air Traffic Control Automation Systems with the participation of 13 countries;

— aeronautical studies and review of comments by the Eastern Caribbean Civil Aviation Authority (ECCAA) in order to authorize night operations in one State;

— administrative assistance for awarding of 41 fellowships to candidates from the region for an Airport Masters Programme provided in one State;

— procurement of airport support systems and equipment for one State, such as runway sweepers, voice communication control systems, passenger boarding bridges and two lifting vehicles for disabled passengers;

— leasing of automatic dependant surveillance (ADS) and controller-pilot data link communication (CPDLC) workstations for one State;

— procurement of a digital aerial mapping system for one State;

— procurement of CNS/ATM systems, such as instrument landing systems (ILS) Category III, very high frequency omnidirectional radio range/distance measuring equipment (VOR/DME) systems and radar spare parts for two States;

— procurement of visual navigation aids for one State;

— contract award for the acquisition, installation and commissioning of baggage handling systems for one State;

Europe and Middle East (EUR/MID) Region

— operation and management of the Middle East Regional Monitoring Agency (MID RMA) with the participation of ten States;

— review of an Airport Master Plan for one State;

— review of the design of the terminal building at an international airport;

— review of the existing communications and navaids systems for several airports in one State;

— an aeronautical study to determine the obstacle limitation surfaces at several international airports in one State;

— procurement of an air traffic control (ATC) simulator for one State; and

— delivery of three seminars on communications/navigation/surveillance and airline training for the Commonwealth of Independent States (CIS).

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

Prevention of the spread of communicable disease

The Assembly urged Member States and regional safety oversight organizations, through adoption of Resolution *A37-13: Prevention of spread of communicable disease through air travel*, to collaborate in developing national preparedness plans and to join the ICAO initiative known as the Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA). The Assembly also agreed that CAPSCA should be included in the Organization's regular programme.

By year's end, 42 States had joined CAPSCA, and under the programme 25 international airports had been assisted with developing their preparedness plans. CAPSCA involves a partnership between ICAO and the World Health Organization (WHO), the United Nations World Tourism Organization (UNWTO), the United Nations Office for the Coordination of Humanitarian Affairs, the International Organization for Migration (IOM), Airports Council International (ACI), the International Air Transport Association (IATA) and the International Federation of Airline Pilots' Associations (IFALPA).

During 2010, CAPSCA was awarded a fourth grant from the United Nations Central Fund for Influenza Action (CFIA), allowing its activities to be extended in 2011 to the Middle East from regions where it is already established (Asia/Pacific, Africa and the Americas). The CFIA will end by 2012, after which a new source of income will be required to ensure continuation of CAPSCA activities.

Non-chemical disinsection of aircraft

Collaboration with the WHO continued on the development of safer and more effective methods of disinsectizing aircraft for international flights. Resolution *A37-14: Non-chemical disinsection of the aircraft cabin and flight deck for international flights*, encouraged development of performance-based standards and further consideration of non-chemical disinsection methods.

Technical cooperation projects and activities

During 2010, there were 75 national and 18 regional active technical cooperation projects supporting the continuity of aviation operations in the countries and regions concerned. Major achievements over the period included:

Africa-Indian Ocean (AFI) Region

— assessment of a TRAINAIR Centre prior to joining the TRAINAIR Network; and

— assistance in the development of the Pandemic Preparedness Plan to two States.

Asia and Pacific (APAC) Region

— delivery of one seminar/workshop on the subject of aviation business continuity planning for States in the region;

— adoption of the TRAINAIR Plus methodology and establishment of a Course Development Unit at the Civil Aviation Academy of one State;

— administrative assistance to Developing Countries Training Programmes of six States for, inter alia, the award of fellowships to candidates from developing countries for courses provided at civil aviation training institutions in the host States; and

— provision of assistance to 13 States and Special Administrative Regions in the field of aviation medicine through Cooperative Arrangements for the Prevention of Spread of Communicable Disease through Air Travel — Asia/Pacific (CAPSCA-AP).

Caribbean and South American (CAR/SAM) Region

— assistance to six States in the strengthening and modernization of their civil aviation authorities, including transition from military to civilian control;

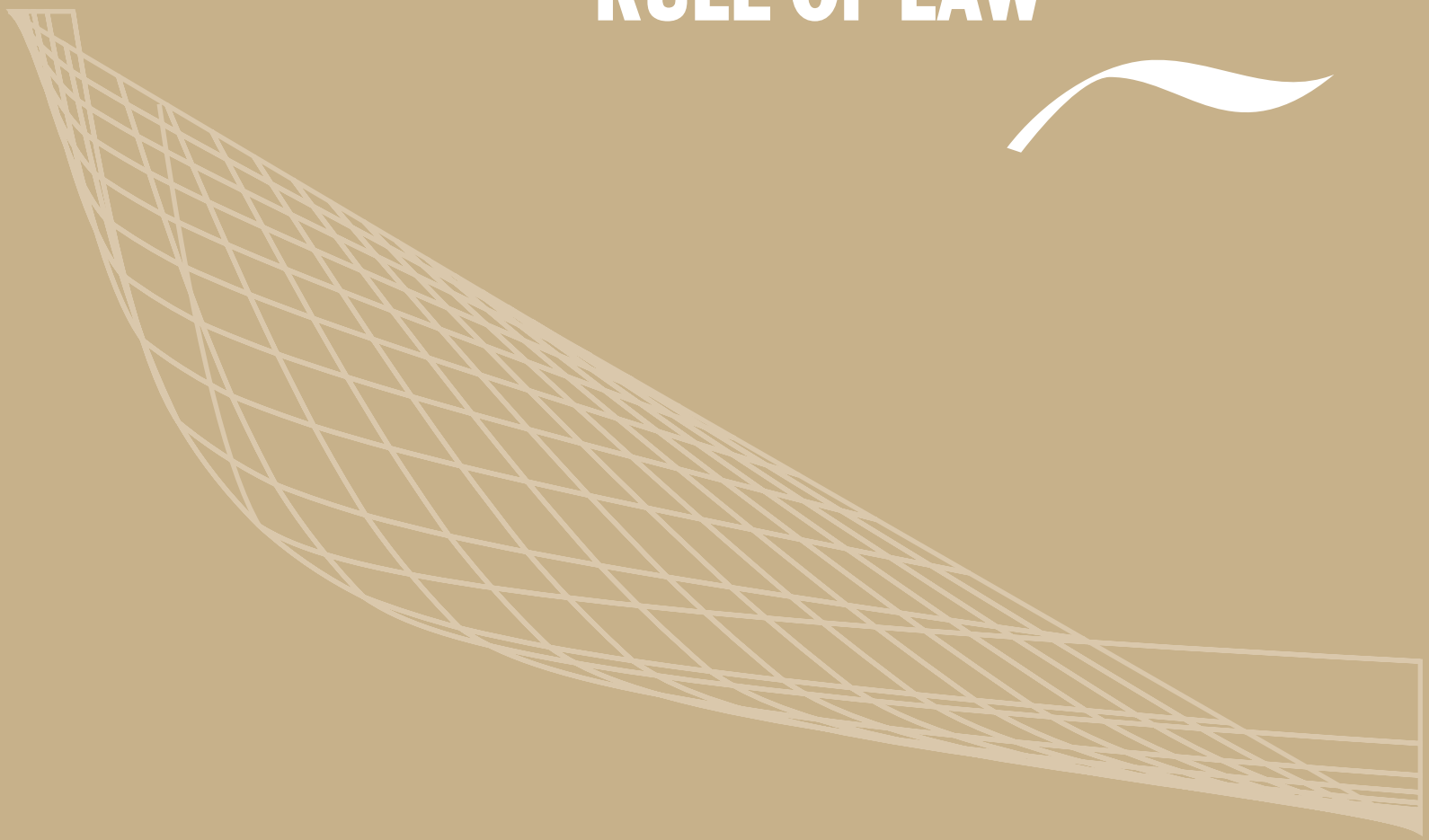
— adoption of the TRAINAIR methodology for the training centre of one State; and

— support to the Latin American Civil Aviation Commission through numerous activities, such as administrative management training, meetings, seminars, processing of fellowships and travel arrangements.

Europe and Middle East (EUR/MID) Region

— provision of assistance to one State in the transition of their national civil aviation personnel from military to civilian control.

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

The activities conducted under the work programme of the Legal Committee covered a range of subjects in 2010. Developments are highlighted according to their order of priority.

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

The Preparatory Commission for the establishment of the International Fund held three meetings, the first in Pretoria from 25 to 27 January; the second in London from 21 to 23 June; and the third in Singapore from 7 to 10 December. The Commission worked on a wide range of issues in fulfilment of its mandate, among them the Regulations of the International Fund; Recommendation on Period and Amount of Initial Contributions to the Fund; Guidelines for Compensation; Guidelines on Investment; and Guidelines in Case of Events in States Non-Party.

The 37th Session of the Assembly noted the progress made and urged States with relevant experts to join in the work of the Preparatory Commission. States were also urged to bring about the entry into force of the two Conventions adopted in 2009.

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

The Diplomatic Conference on Aviation Security, held in Beijing from 30 August to 10 September 2010, adopted the *Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation* (the Beijing Convention) and the Protocol Supplementary to the *Convention for the Suppression of Unlawful Seizure of Aircraft* (the Beijing Protocol). The Conference was attended by representatives from 76 States as well as observers from four international organizations.

The Beijing Convention modernized the *Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation* of 1971 and its Supplementary Protocol of 1988 by criminalizing the act of using civil aircraft as weapons, and the act of using dangerous materials to attack aircraft or other targets. The unlawful transport of biological, chemical and nuclear weapons and their related material has been made punishable. Cyber attacks on air navigation facilities will also trigger criminal responsibility. By the end of the year, the Convention was signed by 20 States.

The Beijing Protocol updated the *Convention for the Suppression of Unlawful Seizure of Aircraft* (The Hague, 1970), by expanding its coverage against the different forms of aircraft hijackings. By the end of the year, the Protocol was signed by 22 States.

Both the Convention and the Protocol specifically cover the criminal liability of directors and organizers of an offence under the treaties. Making a threat to commit an offence under the treaties may be criminally accountable when the circumstances indicate that the threat is credible. Under certain conditions, agreement or contribution to an offence, whether such an offence is actually committed or not, may also be punishable. The treaties update provisions to promote cooperation between States in combating unlawful acts directed against civil aviation while emphasizing human rights and fair treatment of suspects.

In light of Assembly Resolution *A37-23: Promotion of the Beijing Convention and the Beijing Protocol of 2010*, the Council and the Secretariat began promoting the ratification of the Beijing instruments.

On another subject under this item, the Secretariat Study Group on Unruly Passengers was reactivated at the end of 2010.

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 it functions efficiently, in accordance with Article 17 of the Cape Town Convention of 2001. The Council issued its second report to the Parties to the Cape Town Convention and Protocol concerning the discharge of its functions as Supervisory Authority and, during its 189th Session, approved changes to the *Regulations and Procedures for the International Registry* (Doc 9864). The fourth edition of the *Regulations and Procedures for the International Registry* was published in July. As a result of the Council's decision in October 2009 to reappoint Aviareto Ltd. as the Registrar for a second five-year term commencing 1 March 2011, a new contract with the Registrar was prepared.

Review of the question of the ratification of international air law instruments

The Secretariat continued to take the administrative actions necessary to encourage ratification of international air law treaties, such as developing and disseminating ratification packages and promoting ratification at various meetings and seminars. The President of the Council and the Secretary General, during their visits to States, emphasized ratification matters. Air law treaties were promoted during the 37th Session of the Assembly, Council meetings and the Beijing Diplomatic Conference on Aviation Security.

The electronic Treaty Collection was further enhanced, and its visibility heightened with a link on the ICAO website under the heading “Most Popular”.

The Collection contains the current lists of parties to air law treaties; the 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 air law treaties. The Beijing Convention and Protocol adopted on 10 September were the latest additions to the Treaty Collection, which is updated with each depositary action.

Together with newly added Assembly Resolutions related to ratification matters and current relevant information and recommendations, these materials replace the State letters which had circulated this information twice a year.

Safety aspects of economic liberalization and Article 83 bis

The Secretariat continued to actively monitor this issue. In this context, legal support was provided for the establishment of the necessary framework to implement Article 21 of the Convention regarding a database of aircraft registration and ownership, as well as for an international register of air operator certificates.

Consideration of guidance on conflicts of interest

The consideration of guidance on conflicts of interest was added to the work programme following a proposal made at the 37th Session of the Assembly.

In the given context, it was suggested to consider conflicts of interest in three distinct areas: 1) financial interests in regulated entities; 2) the movement of individuals from positions in government to industry and vice versa; and 3) the practice of designating or seconding personnel to carry out oversight functions on behalf of the Civil Aviation Authority. The Legal Committee will study this matter further and recommend, if necessary and appropriate, promulgation of guidance material.

Technical cooperation projects and activities

During 2010, there were 15 national and seven regional active technical cooperation projects supporting activities linked to international air law. Major achievements over the period included:

Africa-Indian Ocean (AFI) Region

— development of primary civil aviation legislation for the Central African Economic and Monetary Community (CEMAC) States; and

— development of a set of national civil aviation regulations for one State.

Asia and Pacific (APAC) Region

— revision of regulations and procedures for compliance with SARPs for the Directorates of Airports, Air Navigation, Airworthiness, Operation and Security of one State.

Caribbean and South American (CAR/SAM) Region

— assessment of the civil aviation regulatory framework of one State.

Europe and Middle East (EUR/MID) Region

— review and amendment of the Aviation Law in one State.

SUPPORTING IMPLEMENTATION STRATEGIES

SUPPORTING IMPLEMENTATION STRATEGIES

Human resources

At the end of December 2010, there were 577 established posts within ICAO, of which 271 posts were in the Professional and higher categories, and 306 were in the General Service category.

The overall representation of women in the Secretariat reached 29.67 per cent in 2010. At the senior level, the representation of women was maintained at 60 per cent for D-2 posts, and stood at 15.79 per cent for D-1 posts. The support of Member States was sought in encouraging qualified women to apply for ICAO posts and in the appointment of women Representatives on the ICAO Assembly, Council, and other meetings or bodies of ICAO. As part of ICAO's outreach efforts, five qualified women were awarded the ICAO Women in Aviation International Training Scholarship and completed training in the Air Navigation and Air Transport Bureaus.

A comprehensive review of the *ICAO Service Code* was undertaken by the Secretariat and the Human Resources Committee, taking into account the latest developments in the United Nations. The Council approved, in September, the ninth edition of the *ICAO Service Code*. The main changes introduced were in the areas of recruitment, contractual arrangements, ethics, staff development and administration of justice.

Work continued on the development and implementation of the human resources module to support the management of data on positions, staff and conditions of employment. The assessment and review mechanisms of the online employee performance evaluation system were re-examined and areas for improvement were identified for implementation in 2011. Work was also initiated on the design and configuration of an online recruitment system. The integrated HR-Payroll module was implemented in 2010. Further automation continued on human resources processes, such as leave management and various self-service functions. Reviews of workflow and work procedures are ongoing in order to streamline procedures and enhance the quality and timeliness of services to internal and external clients.

ICAO carried out administrative, management and technical training and staff development activities throughout 2010 in order to assist staff in updating their skills and knowledge in order to assist in enhancing the delivery of programmes. The development of managerial competencies was given priority and managers received coaching in these areas. Resources were also made available to the Regional Offices to conduct training activities locally.

Languages

In 2010, the Language and Publications Branch (LPB) handled 12.13 million words, a 15.8 per cent increase over the previous year, using 41 per cent outsourcing and 59 per cent internal resources.

Interpretation was provided to 1 595 sittings compared to 1 714 in 2009.

Due to budgetary constraints over the last two triennia, a backlog was accumulated of publications already published in English but not yet delivered in the other language versions, as well as publications in English editing. At the end of 2009, the Secretary General provided funding from revenue generation excess funds to clear up this backlog and 95 per cent of these publications were completed by the end of 2010.

In an effort to reduce paper and streamline manual processes, new technologies were evaluated and will be introduced in 2011, including computer-assisted translation tools (CATS) to improve quality, consistency and productivity and a search software (ISYS) to facilitate the translation research process.

A staff exchange programme with United Nations Headquarters was initiated and progress was made in the expansion of the roster of translators, revisers and interpreters.

A restructuring of the LPB and the introduction of new productivity standards was initiated. This restructuring includes a thorough review of internal work processes to improve synergies within the Branch as well as the expansion of the outsourcing roster and a greater reliance on new technologies. The new structure will enable ICAO to support its high-level language and quality standards through efficiency improvements rather than through additional funding.

Publications

In 2010, the production of saleable publications increased from the 2009 level and electronic publishing and availability of documentation online increased. In accordance with the free quota policy as stipulated in the *ICAO Publications Regulations* (Doc 7231), the number of publications dispatched to Member States free of charge in 2010 was 46 303.

Records and web management

A business case study on the implementation of an Electronic Document and Record Management System (EDRMS) indicated that such a system would allow ICAO to streamline workflows, automate some administrative processes and facilitate the transition from a paper to an electronic environment. It was concluded that, to maximize the use of such a system, web management should be included in order to cover the whole scope of information management, and that the recommended implementation of an information management supporting

system should be linked to an organizational shift from document-centric processes (creating ready-to-print documents) to information-centric processes (creating information assets that can be utilized in different formats according to the user's needs). As a follow-up on the study, an EDRMS project will be introduced in 2011.

The upgrade of the ICAO-NET website continued with a view to improving its design and functionalities. A new version of the ICAO-NET website was temporarily made available to delegates of the 37th Session of the Assembly as a source for reference documentation. The new website was well received and the final switch to the new ICAO-NET is expected in 2011.

Distribution of paper documentation to delegates of the Assembly was further reduced in comparison to previous sessions of the Assembly, as part of the policy of gradual transition to a paperless environment.

Information technology

Throughout 2010, activities continued to focus on enhancing information security, strengthening the infrastructure, and developing information and tele-communication systems further in order to enhance the overall efficiency and effectiveness of ICAO. Specific programme support activities included:

— establishment of direct Internet connectivity between Headquarters and Regional Offices to support the implementation of the Integrated Resource Information System (IRIS) project in all Regional Offices;

— successful deployment of the World Air Services Agreements (WASA) database and the International Codes and Routes Designators (ICARD) system at ICAO;

— dissemination of the *Tariffs for Airports and Air Navigation* Services (Doc 7100);

— delivery of new Internet services which will enhance communication between ICAO and external audiences;

— introduction of SharePoint 2010 and K2 BlackPearl (an electronic workflow technology) to replace the manual or paper-based workflow process;

— introduction of the Electronic Voting System at the 37th Session of the Assembly; and

— establishment of a unified Project Management Framework (PRINCE2) to support all requests for services.

In order to support demands for business continuity, ICT invested in redundant systems for the production environment, enhanced a data life cycle management system, updated an existing messaging system and implemented the first phase of Disaster Recovery Planning and Business Continuity Planning for ICAO's critical applications and data.

By December 2010, ICT completed the modernization and harmonization of end-users' computing environment in all Regional Offices as part of the one-ICAO ICT infrastructure required to integrate the computing resources of Headquarters and all Regional Offices.

In connection with the EDRMS project, several activities were carried out to standardize ICAO's website technology, enrich website presentation and deploy state-of-the-art web content publishing technology. New websites exhibited a consistent image of ICAO, and content providers were able to publish content directly to websites, significantly increasing ICAO's ability to deliver information to varied audiences.

Revenue-generating activities (RGA)

RGA and products of the Reproduction, Sales and External Distribution Services (RSED) generated approximately CAD 9 million in gross revenue. This amount represents approximately 60 per cent of the total RGA gross revenue generated in 2010. Net revenue derived from RSED activities and services was CAD 4.3 million. This amount is approximately 75 per cent of the total net RGA revenue and represents a significant portion which is allocated towards the Ancillary Revenue Generation Fund (ARGF) extra-budgetary funding contribution (CAD 4.39 million in 2010) for ICAO's budget. For the triennium 2008-2010, RSED revenues were CAD 27 030 792, costs were CAD 12 555 043 and the net total surplus was CAD 14 475 749.

Regional Coordination

Agresso deployment

Deployment of the enterprise resource planning system, Agresso, was completed in the Regional Offices and by year's end all Regional Office accounting transactions were being processed in real time. The new transparent reporting process also allows select users at Headquarters to monitor the status of allotments in the Regional Offices.

Regional Office Manual

The *Regional Office Manual* (ROM) was revised and, as a living document, will be kept up to date. The latest version of the ROM is available on ICAO's Intranet home page http://secretariat.icao.lan/osg/rcc.

Regional Organizations and Regional Bodies

In September, Memoranda of Cooperation were signed with the African Union (AU), the African Civil Aviation Commission (AFCAC), the Arab Civil Aviation Commission (ACAC), the European Civil Aviation Conference (ECAC) and the Latin American Civil Aviation Commission (LACAC). Also initialled was a Memorandum of Cooperation (and Safety Annex) with the European Union (EU).

These Memoranda of Cooperation help implement ICAO's policy and framework for regional cooperation while also establishing synergy between ICAO and each regional civil aviation body. They help ensure that all bodies follow a structured and shared programme of events, obviate duplication of work and hold periodic meetings.

Communications

A new strategic communication plan was implemented to enhance awareness of ICAO's programmes and activities among the general public and critical social and political constituents worldwide, emphasizing both traditional and non-traditional media as well as new and emerging mass communications technologies.

Communication initiatives in 2010 included:

1) establishment of a new web-based newsroom;

2) a high-profile "branding" campaign on the theme of *ICAO: Uniting Aviation on Safety, Security and the Environment*;

3) launch of an electronic employee newsletter titled "Atmospheres".

Major accomplishments in 2010 included a highly successful media campaign for the 37th Session of the Assembly and a significant expansion in the collaboration of Member States and Regional Offices in numerous media and outreach activities.

TECHNICAL COOPERATION PROGRAMME

TECHNICAL COOPERATION PROGRAMME

The Technical Cooperation Programme complements the activities of the Regular Programme by supporting Member States in their implementation of ICAO regulations, policies and procedures. In 2010, ICAO implemented a Technical Cooperation Programme valued at USD 136.8 million. Under various Trust Fund arrangements, 197 projects were carried out in 95 countries, of which 8 were operationally completed during the year. Summaries of the projects implemented in 2010 can be found in Appendix 2 of this report, available online at: http://www.icao.int/annualreports.

Approximately 98.5 per cent of the total Programme funding in 2010 was provided by developing countries that financed their own technical cooperation projects. Extra-budgetary contributions for specific projects from donors such as development banks, regional organizations, funding institutions and the aviation industry, including voluntary contributions in kind, amounted to 0.5 per cent of the Programme volume. The United Nations Development Programme (UNDP) core contribution amounted to 1.0 per cent of the Programme.

During the period of 2008 to 2010, the annual Programme decreased in volume by 12.8 per cent, primarily because of numerous projects in the Americas region coming to conclusions.

The Technical Cooperation Programme implementation by region
(in millions of US dollars)

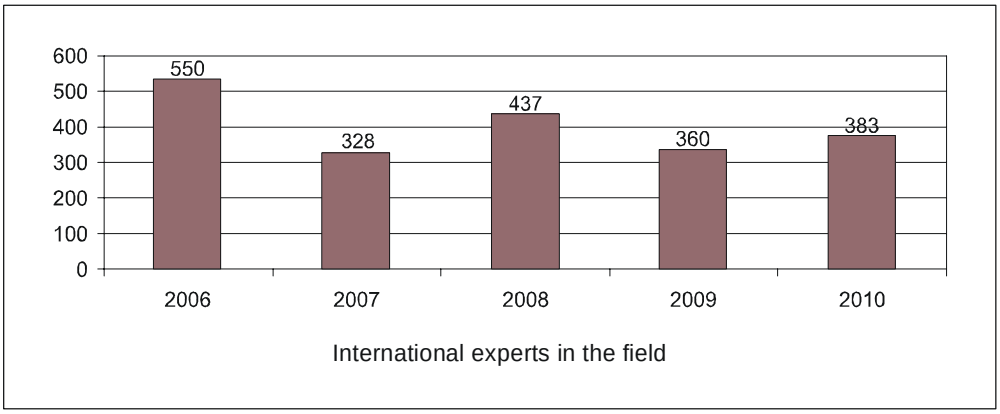
Region	2008	2009	2010
Africa	16.07	13.17	9.50
Americas	102.06	77.95	97.31
Asia and Pacific	7.09	20.60	11.97
Europe and Middle East	31.74	17.54	18.10
Total	**156.97**	**129.27**	**136.88**

As highlighted below, the three main components of projects implemented by ICAO were the recruitment of field experts, fellowships awarded to civil aviation department personnel selected by governments, and procurement of project equipment and services.

Recruitment of experts

In 2010, 383 international field experts and consultants were recruited by ICAO. Together with 835 national project personnel, there were 1 358 serving officials, including 140 international field experts and consultants who were already serving in the field. These experts served as advisers to national civil aviation administrations, instructors at training centres or on the job, and as executive personnel providing governments with operational and administrative services, including safety inspections, where States lacked these capabilities.

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. Such experts contributed to achievement of the ICAO 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 2010, 872 fellowships were awarded for a total duration of 464.2 work/months, as described below:

— 63 fellowships were awarded in the fields of civil aviation safety management, radar approach control, air transport operations

supervision and aeronautical electronics under the 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 for training at the Civil Aviation Management Institute of China and the Civil Aviation University of China;

— six fellowships were awarded for training at the Indian Aviation Academy in the fields of airport commercial management and airport security;

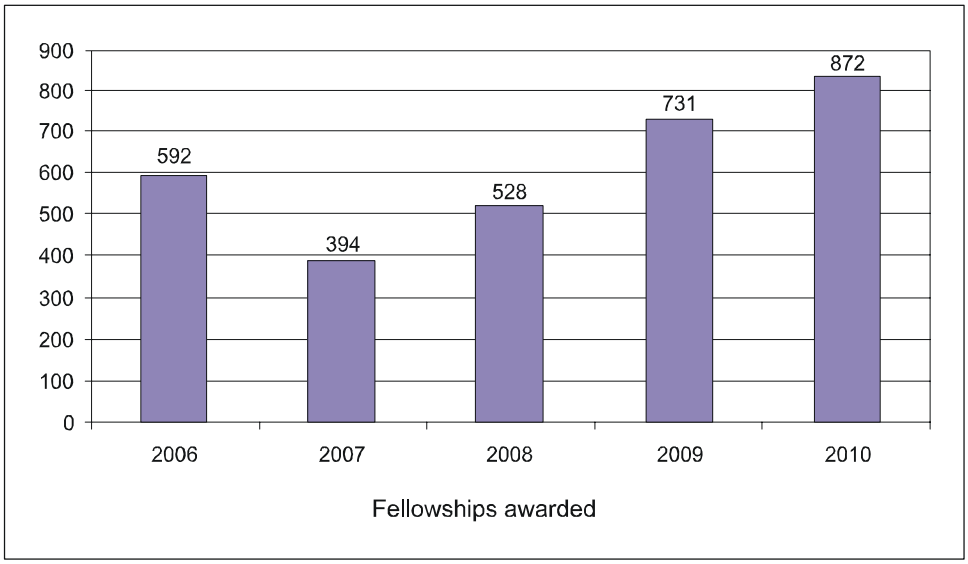
— 159 fellowships were awarded for training at the Korea Civil Aviation Training Centre in the fields of airport operations, aviation security, Doppler VOR maintenance, airport terminal operations, Annex 14 — *Aerodromes*, radar concepts, global navigation satellite systems (GNSS) and radar approach control;

— 83 fellowships were awarded for training at the Singapore Aviation Academy in the fields of aircraft accident investigation and prevention, civil aviation administration and legislation, air traffic services (ATS) safety management and investigation, crisis management in aviation security, communication, navigation, surveillance (CNS) air traffic management (ATM) systems, emergency management, State safety programme, safety oversight inspectors (maintenance and flight operations); and

— 180 fellowships were awarded to participants in courses held at the Civil Aviation Training Centre of Thailand on English language proficiency, aviation security management, dangerous goods management, human factors, meteorology and safety management systems.

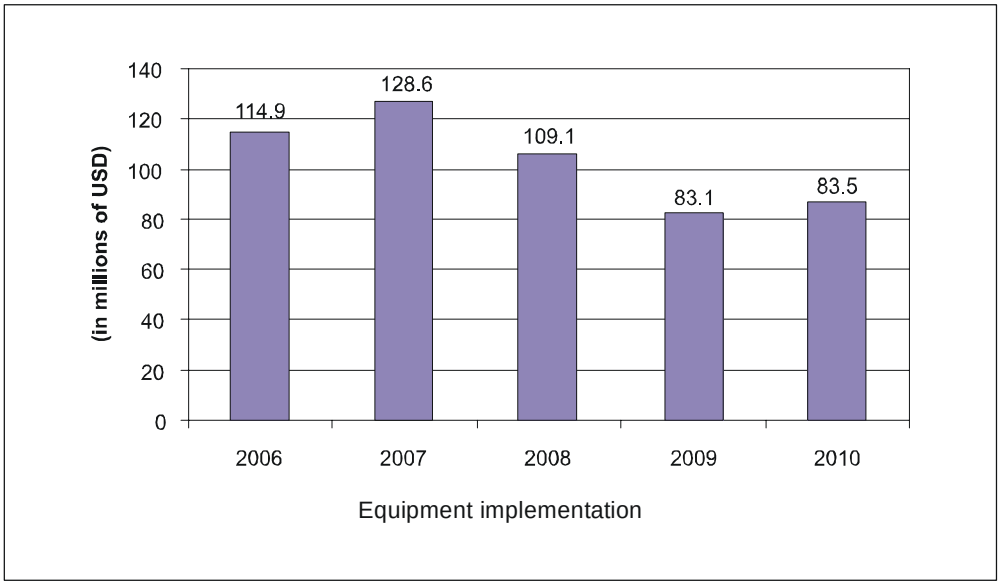
In addition, ICAO experts recruited through technical cooperation projects provided in-country training in various fields for 3 291 civil aviation administration personnel. Compensating for the low UNDP funding, which traditionally supported fellowship training, recipient States also continued to include substantial training for their nationals as part of the procurement component of their ICAO technical cooperation projects. In 2010, 378 national staff benefited from training in new technologies and in the operation of equipment purchased through ICAO projects. Training funds within procurement contracts totalled USD 1.3 million.

The training of management, technical and operational personnel was particularly important in terms of improving State oversight capabilities. According to information provided by Member States, personnel trained through the Technical Cooperation Programme are progressively absorbed by civil aviation administrations which greatly benefit from the training and retention of a workforce of qualified aviation safety and security personnel, including inspectors.



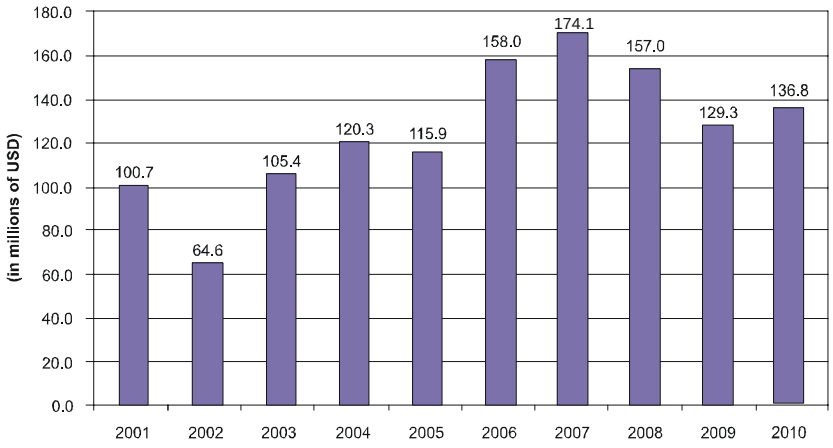
Equipment and subcontracts

During 2010, 399 purchase orders and subcontracts were issued for the Technical Cooperation Programme, and the total field procurement implementation amounted to USD 83.5 million. Assistance provided to States to upgrade their civil aviation infrastructure ranged from the development of technical specifications, tendering and administering of complex multiphase turnkey contracts to the commissioning of equipment, and had a direct and positive impact on the safety and security of airports, communications and air navigation infrastructure, enabling more efficient and economic aviation operations in the countries and regions concerned. In particular, ICAO expertise ensured that technical specifications were in compliance with applicable SARPs and regional air navigation plans.



Implementation volume by Strategic Objective
(in US dollars)

Strategic Objective	The Americas	%	Africa	%	Asia and Pacific	%	Europe and Middle East	%	Total Programme Implementation	%
A. (Safety)	7.69	7.9	5.40	56.8	5.40	45.1	5.63	31.1	24.12	17.6
B. (Security)	2.82	2.9	0.23	2.4	1.46	12.2	1.23	6.8	5.74	4.2
C. (Environmental Protection)	2.04	2.1	0.14	1.5	0.12	1.0	0.0	0.0	2.30	1.7
D. (Efficiency)	43.00	44.2	2.34	24.6	1.84	15.4	4.40	24.3	51.58	37.7
E. (Continuity)	40.15	41.3	0.79	8.3	2.71	22.7	6.17	34.1	49.83	36.4
F. (Rule of Law)	1.61	1.7	0.60	6.3	0.44	3.7	0.67	3.7	3.32	2.4
Total	97.31	100.0	9.50	100.0	11.97	100.0	18.10	100.0	136.88	100.0



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.

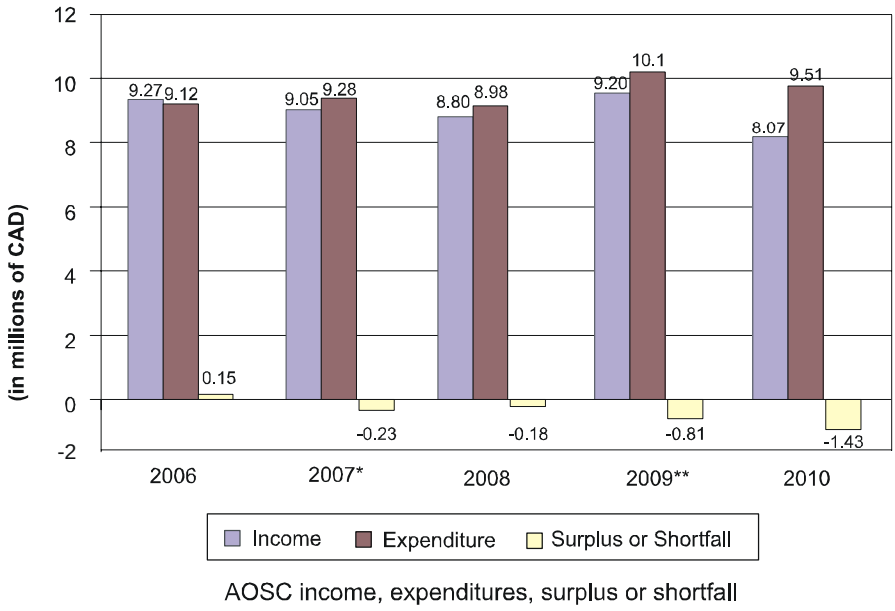
Administrative and Operational Services Cost (AOSC) Fund

The Technical Cooperation Programme is funded by extra-budgetary resources provided by donors or governments that fund their own projects. Administrative charges are levied for the execution of projects on a cost-recovery basis, and revenues raised from these charges are administered through the Technical Cooperation Administrative and Operational Services Cost (AOSC) Fund. The AOSC Fund covers the full cost of the administration, operation and support of the Technical Cooperation Programme, including the Technical Cooperation Bureau's 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.

The Canadian dollar is 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 United States dollars.

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 on 31 December 2010 was estimated at CAD 1.8 million. These funds cover possible deficits in programme operations as well as to pay, if necessary, termination indemnities to staff, the latter amounting to approximately CAD 4.0 million at 31 December 2010.

Estimated results show a shortfall of CAD 1.4 million in 2010, which does not include a foreign currency revaluation gain of CAD 0.5 million. The average overhead rate charged to projects over the past five years decreased from 5.6% in 2006 to 5.3% in 2010.

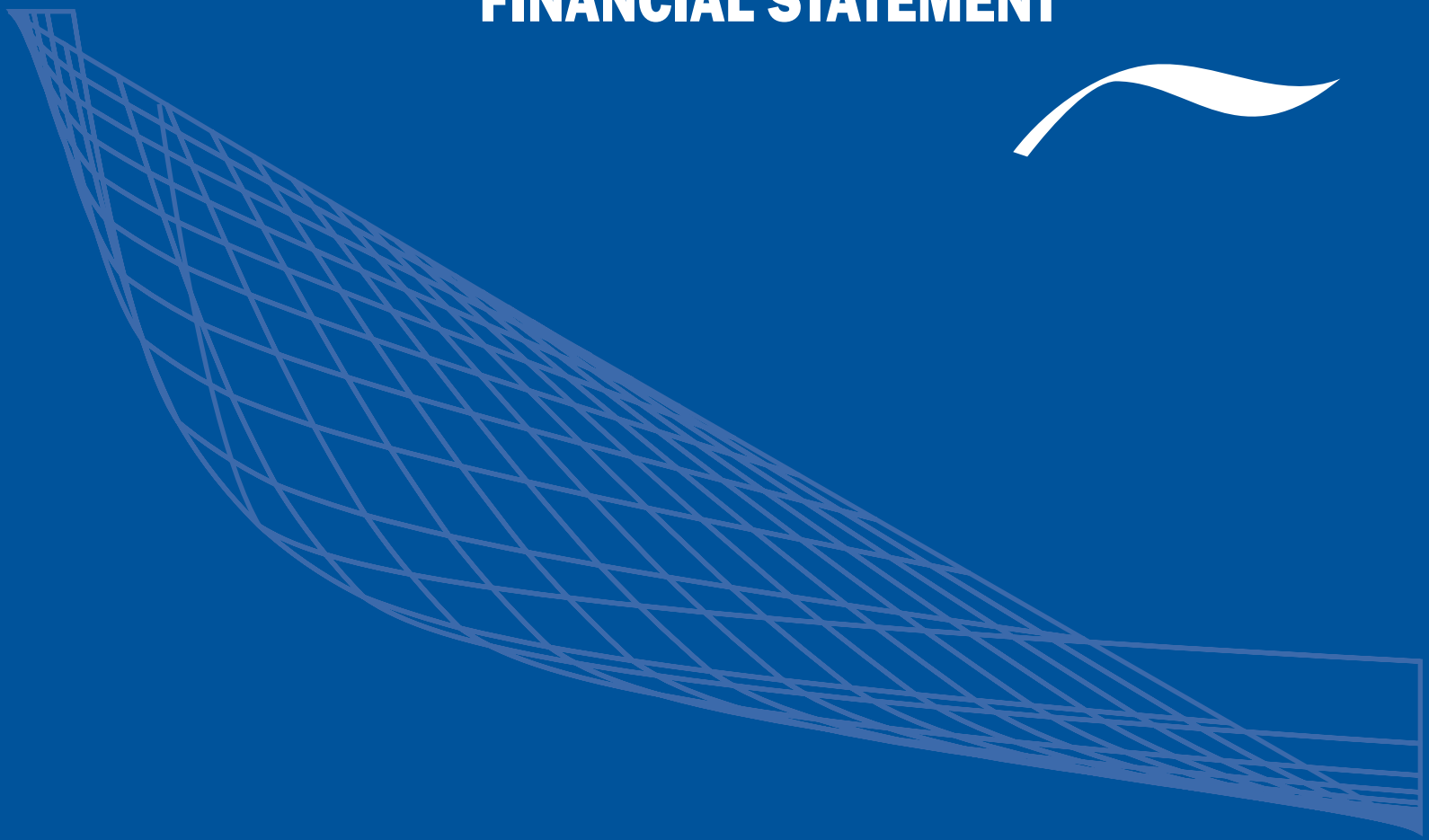


AOSC income, expenditures, surplus or shortfall

* Figures for 2006 and 2007 were reinstated in Canadian dollars to ensure comparability.
** Includes currency gain of CAD 0.9 million.

Detailed information on projects implemented in 2010 can be found at http://www.icao.int/annualreports

FINANCIAL STATEMENT



FINANCIAL STATEMENTS

Financial highlights — 2010

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 2010 was adjusted to CAD 87 645 000, as a result of:

i) the carry-over of 2009 appropriations to 2010 for a total of CAD 13 934 000 in accordance with Financial Regulation 5.6 and Financial Regulation 5.7, C-DEC 190/3;

ii) the transfer of appropriations to other funds of CAD 1 345 000;

iii) the transfer between Strategic Objectives or Supporting Implementation Strategies in accordance with Financial Regulation 5.9;

iv) the following adjustments for a total amount of CAD 11 451 000 to decrease 2010 appropriations and to increase 2011 appropriations:

a) the Outstanding Commitments in the amount of CAD 8 611 000 in accordance with Financial Regulation 5.7; and

b) the carry-over of 2010 appropriations to 2011 in the amount of CAD 2 840 000 as per Financial Regulation 5.6;

The actual expenditure for 2010 amounted to CAD 85 501 000. For the first time in 2010, Member States were invoiced partly in USD and partly in CAD. The USD/CAD exchange rate on 1 January 2010 (the date when invoices were raised in USD) was lower than the rate used in developing the 2010 budget causing a reduction to total assessed contributions of CAD 2 144 000. This difference (CAD 2 144 000) has been added to actual expenditures (CAD 85 501 000) in order to restate them to the budget rate of exchange, which amounts to CAD 87 645 000.

Table 2. Revised appropriations for 2010
(in thousands of CAD)

	Appropriations						Expenditures		
Strategic Objective / Supporting Implementation Strategy	Original Assembly Resolution A36-29	Carry-over from prior year	Decrease of appropriations	Transfers among SO/SIS	Adjustments	Revised	Actual	Budget exchange difference	At budget rate of exchange
Strategic Objectives (SO)									
A – Safety	16 185	3 920		1 619	(1 610)	20 114	19 646	468	20 114
B – Security	8 778	206		(1 491)	(260)	7 233	7 070	163	7 233
C – Environmental protection	1 755	472	(205)	163	(316)	1 869	1 844	25	1 869
D – Efficiency	21 304	2 540		64	(3 389)	20 519	19 695	824	20 519
E – Continuity	2 046	111		(280)	(261)	1 616	1 502	114	1 616
F – Rule of Law	790	16		10	(3)	813	803	10	813
Subtotal - SO	50 858	7 265	(205)	85	(5 839)	52 164	50 560	1 604	52 164
Supporting Implementation Strategies (SIS)									
Management and Administration	19 638	4 006		1 714	(4 527)	20 831	20 511	320	20 831
Programme support	14 871	2 663		(1 799)	(1 085)	14 650	14 430	220	14 650
Subtotal - SIS	34 509	6 669		(85)	(5 612)	35 481	34 941	540	35 481
Total	85 367	13 934	(205)		(11 451)	87 645	85 501	2 144	87 645
Organizational realignment	140		(140)						
Total	85 507	13 934	(345)	0	(11 451)	87 645	85 501	2 144	87 645

Table 3 shows the financial position of ICAO, 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 2009.

Table 3. Cash balances for 2010

	2010			2009		
As at	General Fund CAD	Working Capital Fund CAD	Total CAD	General Fund CAD	Working Capital Fund CAD	Total CAD
1 January	15 140 000	6 223 000	21 363 000	19 483 000	7 265 000	26 749 000
31 March	20 760 000	6 223 000	26 983 000	20 308 000	7 307 000	27 615 000
30 June	19 913 000	6 199 000	26 111 000	21 476 000	6 911 000	28 387 000
30 September	18 670 000	6 202 000	24 873 000	10 206 000	6 475 000	16 680 000
31 December	15 617 000	5 998 000	21 616 000	15 140 000	6 223 000	21 363 000

Tables 4 and 5 below are an extract of the audited Financial Statements of ICAO for the year 2010. The 2010 Financial Statements have been prepared in accordance with IPSAS for the first time. A full explanation and detailed analysis are contained in the Presentation by the Secretary General and the Notes to the Financial Statement reflected in the audited Financial Statements of ICAO for the year 2010.

Table 4 shows revenue and expenses for the year 2010 on the IPSAS basis, extracted from Statement II of the Financial Statements. It contains all Funds controlled by ICAO.

Table 4. 2010 Revenue and Expenses Summary (all funds)

	2010 CAD
REVENUE:	
Contributions for project agreements	122 847 000
Assessed contributions	77 483 000
Other revenue-producing activities	13 173 000
Other voluntary contributions	5 976 000
Other revenue	3 798 000
Total revenue	223 277 000
EXPENSES	
Staff salaries and employee benefits	137 359 000
General operating expenses	17 098 000
Supplies, consumables and others	67 796 000
Travel and meetings	10 068 000
Miscellaneous costs	2 375 000
Total expenses	234 696 000
Operating surplus/(deficit)	(11 419 000)
Currency revaluation gain/(loss)	(393 000)
Reported surplus/(deficit)	(11 812 000)

Table 5 presents the Financial Position of the Organization as at 31 December 2010. It shows the assets, liabilities and surpluses/(deficits) for all funds combined, and it is extracted from Statement I of the Financial Statements.

Table 5. Financial position as at 31 December 2010 (all funds)

	2010 CAD	Opening Balance 1 January 2010 (Restated)[1] CAD
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	210 915 000	215 870 000
Assessed contributions receivable from Member States	6 693 000	5 151 000
Receivables and advances	12 579 000	29 778 000
Inventories	987 000	990 000
Others	2 960 000	3 132 000
SUB-TOTAL	**234 134 000**	**254 921 000**
NON-CURRENT ASSETS		
Assessed contributions receivable from Member States	3 863 000	5 117 000
Receivables and advances	521 000	543 000
Property, plant and equipment	699 000	
Intangible assets	92 000	
Derivative assets		650 000
SUB-TOTAL	**5 175 000**	**6 310 000**
TOTAL ASSETS	**239 309 000**	**261 231 000**
LIABILITIES		
CURRENT LIABILITIES		
Advanced receipts	163 356 000	161 282 000
Accounts payable and accrued liabilities	22 289 000	33 713 000
Employee benefits	4 612 000	4 691 000
Credits to contracting/servicing governments	1 528 000	2 516 000
Deferred revenue	343 000	585 000
SUB-TOTAL	**192 128 000**	**202 787 000**
NON-CURRENT LIABILITIES		
Employee benefits	76 900 000	66 668 000
TOTAL LIABILITIES	**269 028 000**	**269 455 000**
NET ASSETS		
Accumulated deficit	(35 416 000)	(24 859 000)
Reserves	5 697 000	16 635 000
NET ASSETS/EQUITY (accumulated deficit)	**(29 719 000)**	**(8 224 000)**
TOTAL LIABILITIES AND NET ASSETS	**239 309 000**	**261 231 000**

1. The 31 December 2009 figures have been restated on 1 January 2010 to show comparative figures on the IPSAS basis.

The main points to note in the Financial Statements for 2010 are:

— with the application of IPSAS in 2010, long-term liabilities related to after-service health insurance benefits, annual leave and repatriation benefits are now presented in the Statement of Financial Position;

— the overall cash and financial position remain adequate to meet spending requirements on a short-term basis, noting also that employee benefits are settled on a “pay as you go” basis;

— there remains assessed contribution arrears of CAD 12.6 million, which are held as receivables at full value, and presented in the Financial Statements on a discounted value of CAD 10.5 million, and net of an allowance for a doubtful account as required by IPSAS and continues to present a limitation on Programme implementation;

— the Technical Cooperation Programme has continued to perform with tight margins, but has shown improved results over 2009; and

— this is the third year of reporting currency as Canadian dollars (CAD) and with the exchange rate with the United States dollar (USD) fluctuating significantly from year to year, there remain significant gains and losses arising from currency transactions.

Adoption of International Public Sector Accounting Standards (IPSAS)

These international accounting standards are being implemented by United Nations organizations during the period from 2008 until 2014. The benefits of IPSAS adoption include:

— improved consistency, comparability and reliability of the financial statements;

— increased transparency with respect to assets and liabilities;

— more comprehensive information about costs;

— opportunity to enhance oversight and internal controls; and

— better quality of financial reporting.

ICAO is in fact gaining these benefits through the adoption of IPSAS in 2010 in addition to other advantages. When compared to previous United Nations accounting standards, IPSAS are recognized in the international community, comprise more requirements and are established by an independent body. Thus the audited financial statements prepared under IPSAS are more comparable to other public sector organizations and provide a basis for increase in confidence and recognition by stakeholders. Assets and liabilities are also better disclosed

and their impact better reflected in the financial statements. For example, the acquisition of equipment and intangible assets during the year amounting to CAD 0.5 million is now presented in the statement of financial position instead of being charged to expense and disclosed in a note. Also, the inventory of publications at the amount of CAD 0.7 million and significant liabilities for employee benefits related to after-service health insurance benefits, annual leave and repatriation benefits totalling CAD 76.5 million at 31 December 2010, are now recognized on the face of the financial statements, which contribute to increased transparency in financial reporting.

The impact of recognizing expenses when assets are consumed and benefits are gained provides more complete information on costs. For example, expenses will be recognized only when assets are sold or utilized with regard to the inventory of publications, and for equipment and intangible assets on the basis of depreciation and amortization over their useful lives. Also, increases or decreases to the liabilities for all employee benefits are now directly reflected in the statement of financial position and financial performance of ICAO which provide more complete information on financial performance. The need to obtain more complete financial information, notably on assets and liabilities, provides a good opportunity to improve or to review management practices and internal controls. The overall impact of IPSAS adoption is an improved quality of financial reporting, which is a key tool to properly manage the operations of ICAO with due regard for economy, efficiency and effectiveness.

The adoption of IPSAS is a part of the United Nations' ongoing efforts to align the United Nations system with internationally recognized best practices through the application of credible, independent accounting standards on full accrual basis.

By fully implementing IPSAS requirements in 2010, ICAO is one of the first United Nations organizations to have successfully met this very important challenge for all United Nations organizations.

Rolling Business Plan

In an ongoing effort to prepare for exigencies created by the ever-changing world of aviation, in 2010 ICAO proposed adopting a "Rolling Business Plan" approach for the next triennium. The Rolling Business Plan affords ICAO management the flexibility to adapt to changes in the world of aviation while simultaneously maintaining a three-year horizon for ICAO. Under the Rolling Business Plan, in 2012 the first year of the 2011-2013 triennium would be omitted from the plan (and 2014 added). The plan will consist of activities and projects funded by the regular budget or by voluntary contributions, as well as activities that remain unfunded.

During 2010, a successful pilot project was implemented by the Air Navigation Bureau to introduce ICAO's Knowledge Sharing Network version 2 (IKSN v.2). IKSN is a customizable information management tool built on SharePoint and designed to provide the Secretariat with project management, reporting, business intelligence and collaboration capabilities.

Ancillary Revenue Generation Fund (ARGF)

The ARGF continues to develop new revenue generating opportunities and manage its costs and as a result continues to perform well.

In addition to the CAD 4 386 000 contribution made towards the 2010 appropriation, ARGF provided CAD 530 000 of extra-budgetary contribution in accordance with Financial Regulation 7.3(c).

For the triennium 2008-2009-2010, ARGF revenues attained CAD 45 000 000, costs CAD 42 337 000 and the net total surplus of CAD 2 663 000.

Evaluations and audits

During 2010, the Evaluation and Audit Office (EAO) conducted internal audits of field procurement practices, interpretation services, the enterprise resource planning system used for processing financial transactions (Agresso), and a technical cooperation project in Somalia. An evaluation was completed of the Universal Safety Oversight Audit Programme (USOAP); an expert seconded by the Civil Aviation Authority of Italy (ENAC) assisted with the preparation of this evaluation.

A database was created to facilitate the monitoring of recommendations arising from internal audits and evaluations performed by EAO, the External Auditor and the United Nations Joint Inspection Unit (JIU).

During the year, JIU reports on information and communication technology hosting, United Nations support to Africa, and the management of websites, were presented to the Council, along with action plans proposed by the Secretariat.

APPENDIX 1. WORLD OF AIR TRANSPORT IN 2010

According to preliminary traffic statistics compiled by ICAO, world passenger-kilometres performed on total scheduled services (i.e. international and domestic services combined) increased by about 8.0 per cent (8.5 per cent international and 7.1 per cent domestic) over 2009, a year of depressed traffic caused by the global financial crisis. The airlines of ICAO's 190 Member States carried approximately 2.5 billion passengers in 2010, showing an increase of about 8.7 per cent over 2009. Detailed air transport statistics are available online at: www.icao.int/annualreports.

The substantial rise in passenger traffic was a reflection of positive economic growth worldwide. The world's real gross domestic product (GDP) is estimated by IHS Global Insight, a major global economic forecasting organization, to have increased by 3.9 per cent in 2010.

International passenger traffic grew by 8.5 per cent in 2010, led by a strong rebound in business and leisure long-haul travel, particularly in emerging markets such as the BRIC (Brazil, Russia, India and China), where outbound tourism flourished. The largest percentage increase in international traffic was registered by the airlines of the Middle East, with 20.5 per cent growth, followed by those of the African Region (18.3 per cent) and Asia/Pacific (12.6 per cent).

International traffic in the markets of Europe, Latin America and North America grew by 7.7, 6.6 and 6.6 per cent, respectively. The comparatively low growth figures for both Europe and North America relate to a larger traffic base and therefore still represent significant increases in absolute terms. Europe, moreover, benefitted from the ability of low-cost carriers to expand their point-to-point markets, in part because of the earlier geographic expansion of the European Union.

Also, demand for air travel remained strong and resilient despite the impact of the eruption of the Eyjafjallajökull volcano which partially closed European airspace in the spring, disrupting business and leisure travel and paralyzing air cargo delivery. As a result of the volcanic ash cloud, it was estimated that more than 100 000 flights were cancelled, including 80 per cent of air services in the intra-European market, while 9 million passengers were affected.

In terms of domestic air services, markets overall grew by 7.1 per cent over 2009. Growth rates of 2.4, 7.7 and 7.6 per cent in North America, the Middle East and Africa respectively were offset by rates of 12.8 per cent in the Asia/Pacific Region, 18.6 per cent in Latin America and 9.9 per cent in Europe.

Asia/Pacific volumes benefitted from an increase of around 17 per cent in the domestic Chinese market. In North America, still the world's largest domestic market, deceleration of traffic growth blurred the line dividing low-cost carrier and legacy business models.

Overall, the impressive international traffic growth and robust domestic markets in developing countries, coupled with higher economic growth than in the developed economies, created different patterns of growth and the regional disparities were noted.

Capacity offered by the world's airlines, expressed as available seat-kilometres, increased globally by 6.1 per cent. While capacity growth ranged from 18.9 per cent in the Middle East to 2.6 per cent in North America, load factors nonetheless improved by 1.0 per cent on average.

The improvement in load factors, combined with marginal growth in the number of departures (4.9 per cent) relative to the increase in traffic, pointed to efficient management by the airline industry, helping to sustain air transport development from both an economical and environmental point of view.

With regard to air cargo, in parallel with the sudden rebound in global trade, freight tonne-kilometres performed posted growth of 19.8 per cent, the largest increase in three decades and a dramatic improvement over 2009, when freight tonne-kilometres fell by 8.9 per cent. The recovery was led by the carriers of the Asia/Pacific Region, where cargo volume grew by 23.6 per cent, while all regions posted double-digit growth.

Several industry trends were either strengthened or confirmed as a result of the latest recession. Air carrier consolidation accelerated, mainly for United States and European airlines, to allow operators to maintain competitiveness. At the same time, low-cost carriers continued their expansion, notably in Asia where they currently represent 15 per cent of the passenger market share.

In the Middle East, airlines took advantage of ongoing liberalization to offer a product promising "value for money", with connections to strategic hubs within the region as well as new and efficient aircraft offering attractive seating and amenities.

Based on incomplete figures, ICAO is forecasting an operating profit at the level of about 4 per cent of operating revenues. (Complete financial data for 2010 had not been reported to ICAO at the time of writing because of variations in fiscal year reporting.)

The world economy is expected to grow by more than 3.5 per cent per year over the next three years; on that basis, ICAO forecasts that passenger-kilometres performed worldwide will rise by 5.3 in 2011 and 6.2 per cent in 2012. Oil prices, above USD 80 at year's end and higher than the 2007 average level, remain a potential impediment to growth, although this could be mitigated to a certain extent by the delivery of new and more fuel-efficient aircraft.

With regard to new aircraft, the world's two major aircraft manufacturers made 972 deliveries during 2010, with approximately 40 per cent of these deliveries expected to replace aircraft operating in mature markets. The new fuel-efficient aircraft will contribute to a reduction in the carbon footprint of the aviation sector and support efforts to address climate change.

According to an analysis of global safety data involving commercial air transport aircraft with a maximum certificated take-off mass of more than 2 250 kilograms, there were 135 aircraft accidents (19 fatal) on scheduled air services in 2010, an increase of 19.4 per cent over 2009, when 113 accidents were reported. The number of fatalities in scheduled air services worldwide rose to 767 fatalities from 610 in 2009, an increase of 25.7 per cent.

Although the number of accidents rose in 2010, due to growth in global traffic, the global accident rate remained essentially unchanged, at approximately four accidents per million scheduled departures.

Non-scheduled commercial passenger operations experienced 137 accidents in 2010 (29 fatal), compared with 145 accidents in the previous year. The number of passenger fatalities associated with non-scheduled commercial operations decreased to 154 from 200 in 2009. Accident rates for non-scheduled operations could not be estimated because of the lack of comprehensive traffic figures related to such services.

With regard to acts of unlawful interference, during the year, 14 acts of unlawful interference were recorded. These included one attempted seizure, one attack on a facility, one sabotage and eleven other acts including four incidents of attempted sabotage. These acts are included in the annual statistics to assist in the analysis of trends and developments (see Table 11 in the Attachment to this Appendix).

For more comprehensive safety data, readers may refer to the online database: (http://www2.icao.int/en/ism/istars).

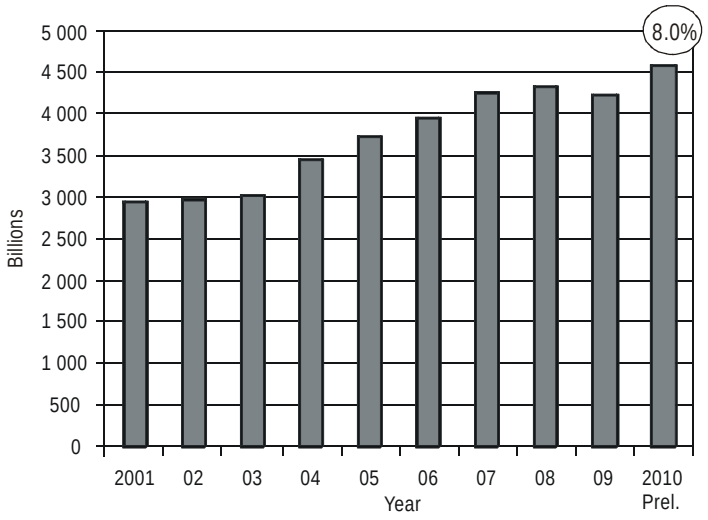


Figure 1. Total scheduled traffic
passenger-kilometres performed, 2001-2010

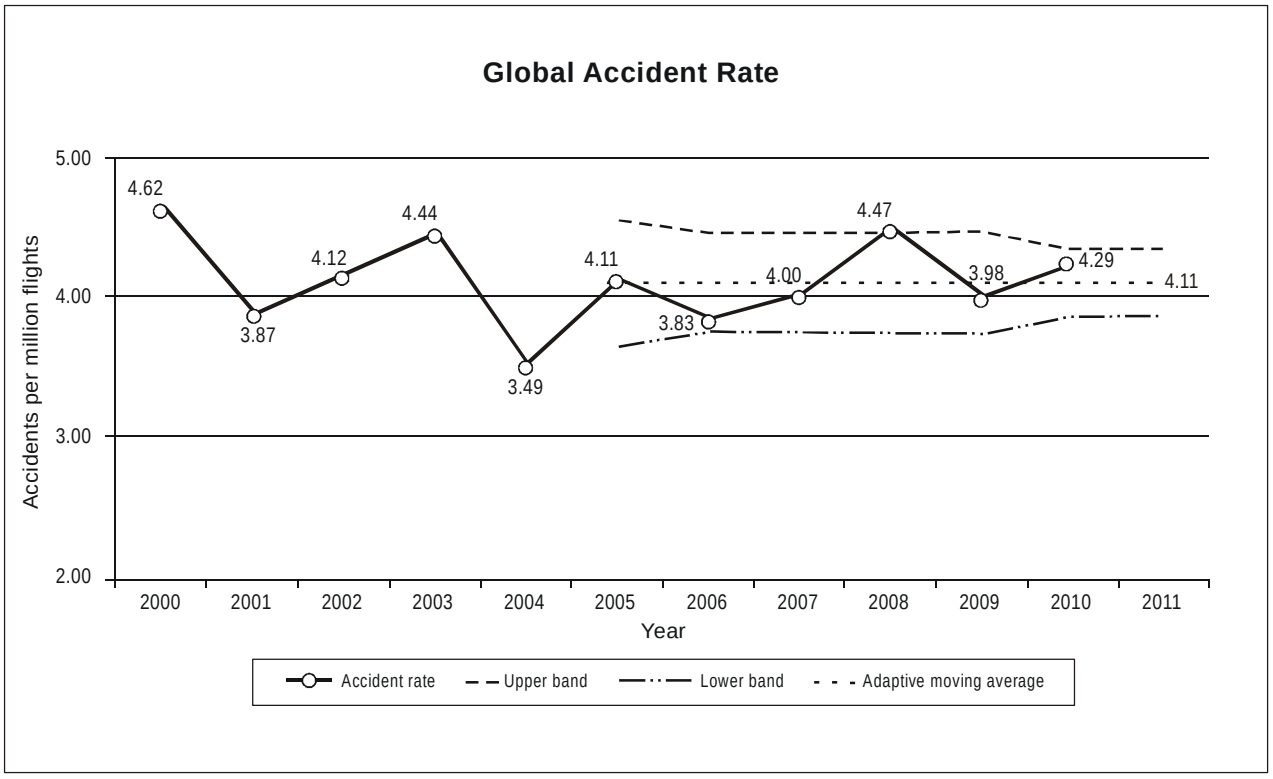


Figure 2. Global accident rate and trend, 2000-2010
(accidents per million scheduled departures)

ATTACHMENT TO APPENDIX 1

General Note.— The statistical data for 2010 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 Member 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 Member States, 2001–2010)

	Passengers		Passenger-km		Freight tonnes		Freight tonne-km performed		Mail tonne-km performed		Total tonne-km performed	
Year	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %	Millions	Annual increase %
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	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	2 127	5.2	3 948 570	6.1	40.0	6.4	151 940	6.6	4 530	-2.8	518 440	6.3
2007	2 303	8.3	4 252 520	7.7	42.0	4.9	159 050	4.7	4 490	-0.9	550 010	6.1
2008	2 367	2.8	4 385 907	3.1	41.0	-2.4	157 755	-0.8	5 011	11.6	563 855	2.5
2009	2 358	-0.4	4 339 719	-1.1	40.7	-0.7	143 752	-8.9	4 738	-5.5	539 655	-4.3
2010	2 563	8.7	4 684 902	8.0	48.0	17.7	172 177	19.8	4 979	5.1	603 031	11.7

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 Member States, 2001–2010)

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 %
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	764	8.3	2 374 810	7.9	24.1	6.6	126 400	6.7	3 040	2.0	349 820	7.5
2007	858	12.3	2 576 130	8.5	25.5	5.7	132 910	5.1	3 180	4.6	372 830	6.6
2008	891	3.8	2 682 761	4.1	25.2	-1.2	131 740	-0.9	3 390	6.6	381 341	2.3
2009	902	1.2	2 648 541	-1.3	24.7	-2.0	120 146	-8.8	3 371	-0.6	366 472	-3.9
2010	998	10.6	2 873 806	8.5	31.8	28.7	146 321	21.8	3 586	6.4	415 985	13.5

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 Member States, 2001–2010)

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 %
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	3 948 570	5 215 340	76	151 940	4 530	518 440	819 810	63
2007	4 252 520	5 544 460	77	159 050	4 490	550 010	868 300	63
2008	4 385 908	5 788 437	76	157 755	5 011	563 865	896 594	63
2009	4 339 719	5 671 180	77	143 752	4 738	539 655	859 267	63
2010	4 684 902	6 025 765	78	172 177	4 979	603 031	906 866	66

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

Table 4. Regional distribution of scheduled traffic — 2010

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 Member States									
Europe	9 965	7 860	748 017	1 307 241	77	44 576	165 567	227 721	72
Percentage of world traffic	26.6	28.3	29.2	27.9		25.9	27.5	25.1	
Africa	1 221	762	61 590	123 246	68	2 284	13 781	26 023	53
Percentage of world traffic	3.3	2.7	2.4	2.6		1.3	2.3	2.9	
Middle East	1 969	884	112 359	348 321	76	16 191	49 525	79 404	62
Percentage of world traffic	5.2	3.2	4.4	7.4		9.4	8.2	8.8	
Asia and Pacific	9 642	6 247	710 974	1 283 421	76	62 812	181 420	264 564	69
Percentage of world traffic	25.7	22.5	27.7	27.4		36.5	30.1	29.2	
North America	12 711	10 047	769 275	1 411 714	84	40 864	169 000	268 152	63
Percentage of world traffic	33.9	36.2	30.0	30.1		23.7	28.0	29.6	
Latin America and Caribbean	2 015	1 958	160 669	210 959	70	5 450	23 738	41 003	58
Percentage of world traffic	5.4	7.1	6.3	4.5		3.2	3.9	4.5	
Total	37 523	27 759	2 562 884	4 684 902	78	172 177	603 031	906 866	66
International services of airlines of ICAO Member States									
Europe	8 327	5 201	521 165	1 140 551	78	40 849	149 274	214 837	69
Percentage of world traffic	41.1	56.7	52.2	39.7		27.9	35.9	33.4	
Africa	1 028	447	38 882	109 228	68	2 512	12 869	24 890	52
Percentage of world traffic	5.1	4.9	3.9	3.8		1.7	3.1	3.9	
Middle East	1 794	641	87 779	320 235	76	16 592	47 790	79 946	63
Percentage of world traffic	8.9	7.0	8.8	11.1		11.3	11.5	12.4	
Asia and Pacific	5 027	1 365	199 173	735 365	76	55 859	123 846	184 904	67
Percentage of world traffic	24.8	14.9	20.0	25.6		38.2	29.8	28.7	
North America	3 122	1 057	109 639	459 440	82	24 671	67 357	113 606	59
Percentage of world traffic	15.4	11.5	11.0	16.0		16.9	16.2	17.6	
Latin America and Caribbean	954	460	41 364	108 987	71	5 839	14 849	25 824	58
Percentage of world traffic	4.7	5.0	4.1	3.8		4.0	3.6	4.0	
Total	20 252	9 171	998 002	2 873 806	77	146 321	415 985	644 006	65

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. Tonne-kilometres and passenger-kilometres performed on scheduled services

(countries and groups of countries whose airlines performed more than 100 million total tonne-kilometres in 2010[1])

Country or group of countries	TONNE-KILOMETRES PERFORMED (millions) (passengers, freight and mail)								PASSENGER-KILOMETRES PERFORMED (millions)							
	Total operations (international and domestic)				International operations				Total operations (international and domestic)				International operations			
	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)
United States	1	156 286	147 819	6	1	59 641	54 372	10	1	1 299 874	1 256 996	3	1	394 281	372 738	6
China[2]	2	53 302	42 155	26	6	18 871	12 618	50	2	400 610	334 762	20	10	73 488	55 348	33
Hong Kong SAR[3]		16 189	16 966	-5		16 189	16 966	-5		85 811	89 019	-4		85 811	89 019	-4
Macao SAR[4]		246	240	3		246	240	3		2 106	2 078	1		2 106	2 078	1
Germany	3	29 518	26 796	10	2	28 489	25 818	10	4	202 047	202 681	0	3	191 037	192 489	-1
United Arab Emirates	4	28 347	23 126	23	3	28 347	23 126	23	5	186 821	154 561	21	4	186 821	154 561	21
United Kingdom	5	23 650	23 453	1	4	23 053	22 785	1	3	229 649	230 644	0	2	221 953	222 319	0
Republic of Korea	6	21 175	16 166	31	5	20 724	15 696	32	13	91 759	83 459	10	9	87 121	78 470	11
Japan	7	20 401	18 170	12	9	14 470	12 665	14	7	138 079	127 859	8	11	72 212	66 575	8
France	8	19 543	19 150	2	7	17 837	17 370	3	6	154 761	154 407	0	5	136 493	135 601	1
Singapore	9	14 788	13 997	6	8	14 788	13 997	6	17	87 674	84 514	4	8	87 674	84 514	4
Netherlands	10	13 845	12 500	11	10	13 845	12 500	11	16	87 696	84 575	4	7	87 695	84 575	4
Russian Federation	11	13 474	9 918	36	14	7 614	5 168	47	9	109 435	83 828	31	16	52 616	37 143	42
Canada	12	13 144	11 904	10	12	8 017	6 942	15	8	115 793	107 371	8	12	68 167	60 979	12
Australia	13	11 388	11 652	-2	17	6 721	6 923	-3	12	96 579	100 515	-4	19	46 902	50 061	-6
India	14	10 578	8 944	18	20	5 990	5 086	18	11	99 692	85 788	16	18	49 885	43 773	14
Brazil	15	10 451	7 364	42	25	3 377	2 464	37	14	90 846	74 049	23	25	22 777	20 649	10
Spain	16	9 367	8 276	13	15	7 424	6 369	17	15	88 300	80 094	10	13	68 079	59 782	14
Ireland	17	9 229	7 370	25	11	9 225	7 366	25	10	100 664	80 502	25	6	100 633	80 462	25
Thailand	18	7 844	6 964	13	16	7 359	6 590	19	19	57 201	54 106	6	14	53 257	49 337	8
Qatar	19	7 723	5 621	37	13	7 723	5 621	37	20	52 733	40 408	31	15	52 733	40 408	31
Turkey	20	7 351	6 420	14	18	6 139	5 230	17	18	64 800	57 488	13	17	51 475	44 717	15
Malaysia	21	7 140	6 207	15	19	6 137	5 251	17	21	51 564	45 532	13	20	40 719	35 020	16
Italy	22	5 645	5 151	10	23	4 383	4 187	5	22	50 446	43 951	15	23	37 341	34 084	10
Switzerland	23	5 314	4 371	22	21	5 299	4 358	22	25	40 564	33 698	20	21	40 408	33 552	20
Luxembourg	24	5 234	4 696	11	22	5 234	4 696	11	111	529	483	10	110	529	483	10
Scandinavia[5]	25	4 761	4 303	11	24	4 150	3 729	11	24	43 748	41 449	6	22	37 387	35 447	5
Indonesia	26	4 370	3 836	14	45	1 329	1 097	21	23	46 974	37 675	25	38	12 660	9 443	34
Saudi Arabia	27	4 102	3 746	9	26	3 224	2 902	11	27	30 758	28 891	6	27	21 842	20 248	8
South Africa	28	3 554	3 379	5	28	2 676	2 501	7	26	31 012	29 700	4	26	22 101	20 804	6
Philippines	29	3 438	2 684	28	30	2 590	1 899	36	28	28 084	25 364	11	29	20 196	16 910	19
Chile	30	3 140	2 769	13	33	2 495	2 204	13	33	19 200	17 523	10	39	12 628	11 822	7
Colombia	31	3 097	2 499	24	32	2 495	1 977	26	42	14 760	13 983	6	44	9 596	9 005	7
New Zealand	32	3 083	3 249	-5	27	2 804	2 922	-4	30	25 512	25 358	1	28	21 809	21 736	0
Portugal	33	2 728	2 367	15	31	2 509	2 144	17	29	25 918	22 656	14	24	23 735	20 448	16
Israel	34	2 680	2 375	13	29	2 610	2 348	11	36	18 369	16 757	10	32	17 477	16 454	6
Finland	35	2 456	2 159	14	34	2 361	2 056	15	34	18 947	18 374	3	31	17 883	17 233	4
Austria	36	2 358	2 210	7	35	2 337	2 191	7	32	19 293	17 965	7	30	19 077	17 776	7
Viet Nam	37	2 344	1 797	30	42	1 439	1 065	35	31	21 095	16 531	28	37	12 721	9 530	33
Mexico	38	2 306	2 404	-4	39	1 680	1 715	-2	35	18 546	20 831	-11	41	12 079	13 616	-11
Belgium	39	2 221	1 843	21	36	2 221	1 843	21	48	8 609	7 079	22	47	8 609	7 079	22
Egypt	39	2 186	1 820	20	37	2 074	1 776	17	37	18 217	16 326	12	34	17 123	15 845	8
Bahrain	41	1 773	1 893	-6	38	1 773	1 893	-6	44	12 753	13 950	-9	36	12 753	13 949	-9
Iran (Islamic Republic of	42	1 683	1 373	23	49	943	635	49	39	16 322	14 487	13	51	7 770	6 333	23
Ethiopia	43	1 671	1 478	13	40	1 653	1 460	13	45	10 875	9 746	12	42	10 681	9 562	12
Morocco	44	1 652	1 501	10	41	1 614	1 471	10	38	17 557	15 797	11	33	17 141	15 474	11
Pakistan	45	1 554	1 515	3	44	1 374	1 331	3	43	14 326	13 779	4	40	12 581	12 047	4
Argentina	46	1 501	1 225	23	50	932	716	30	41	15 158	11 997	26	46	8 808	6 418	37
Hungary	47	1 421	1 204	18	43	1 421	1 204	18	40	15 512	13 115	18	35	15 512	13 115	18
Sri Lanka	48	1 180	988	19	46	1 180	988	19	47	9 338	7 750	20	45	9 338	7 750	20
Kuwait	49	1 003	1 004	0	47	1 003	1 004	0	52	7 886	7 962	-1	49	7 886	7 962	-1
Peru	50	992	909	9	53	762	646	18	50	8 458	8 765	-4	56	6 056	5 911	2
Kenya	51	986	987	0	48	967	965	0	51	8 257	7 925	4	48	8 026	7 695	4
Greece	52	921	917	0	55	725	734	-1	49	8 563	8 900	-4	53	6 557	7 083	-7
Panama	53	912	916	0	51	912	916	0	46	10 138	10 175	0	43	10 138	10 175	0
Jordan	54	877	747	17	52	875	746	17	53	7 805	6 734	16	50	7 789	6 721	16
Mauritius	55	762	668	14	54	756	663	14	56	6 320	5 605	13	55	6 257	5 551	13

Country or group of countries	TONNE-KILOMETRES PERFORMED (millions) (passengers, freight and mail)								PASSENGER-KILOMETRES PERFORMED (millions)							
	Total operations (international and domestic)				International operations				Total operations (international and domestic)				International operations			
	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)
Poland	56	736	700	5	56	715	681	5	54	7 710	7 169	8	52	7 453	6 939	7
Ukraine	57	707	588	20	57	659	536	23	55	6 980	5 880	19	54	6 454	5 311	22
Uzbekistan	58	657	507	29	58	627	482	30	58	5 567	4 775	17	59	5 249	4 505	17
Brunei Darussalam	59	603	454	33	59	603	454	33	59	5 260	3 885	35	58	5 260	3 885	35
Czech Republic	60	564	601	-6	60	562	598	-6	57	6 014	6 350	-5	57	5 994	6 324	-5
Oman	61	530	431	23	62	496	404	23	60	5 129	4 308	19	61	4 763	4 016	19
Bangladesh	62	521	623	-16	61	517	620	-17	62	4 905	4 953	-1	60	4 872	4 927	-1
Kazakhstan	63	495	455	9	70	308	283	9	61	4 905	4 529	8	72	2 987	2 760	8
Fiji	64	428	368	17	63	424	363	17	66	3 855	3 230	19	64	3 802	3 182	19
Romania	65	421	377	12	65	402	359	12	64	4 438	3 960	12	62	4 218	3 762	12
Algeria	66	406	365	11	68	347	299	16	63	4 554	4 033	13	65	3 762	3 302	14
Cyprus	67	403	412	-2	64	403	412	-2	65	4 070	4 163	-2	63	4 070	4 163	-2
Iceland	68	398	424	-6	66	398	424	-6	72	3 180	3 445	-8	70	3 180	3 445	-8
Lebanon	69	377	366	3	67	377	366	3	71	3 182	3 075	3	69	3 182	3 075	3
Ecuador	70	340	476	-29	75	228	360	-37	74	2 837	4 248	-33	80	1 473	2 954	-50
Latvia	71	311	283	10	69	311	283	10	67	3 591	2 993	20	66	3 591	2 993	20
Libyan Arab Jamahiriya	72	308	309	0	73	280	277	1	69	3 384	3 293	3	71	3 111	2 920	7
El Salvador	73	299	332	-10	71	299	331	-10	70	3 223	3 516	-8	68	3 219	3 511	-8
Tunisia	74	295	330	-11	72	295	330	-11	68	3 510	3 252	8	67	3 510	3 252	8
Trinidad and Tobago	75	256	279	-8	73	241	255	-5	76	2 718	2 879	-6	74	2 675	2 828	-5
Venezuela	76	249	230	8	91	99	91	8	75	2 765	2 551	8	90	1 069	987	8
Malta	76	249	230	8	74	249	230	8	73	2 949	2 529	17	73	2 949	2 529	17
Yemen	78	237	218	9	76	228	210	9	78	2 448	2 258	8	76	2 357	2 175	8
Costa Rica	79	228	215	6	78	225	213	6	77	2 582	2 877	-10	75	2 555	2 854	-10
Tajikistan	80	205	189	8	80	192	182	6	80	2 166	2 005	8	78	2 084	1 928	8
Jamaica	81	202	206	-2	79	201	206	-2	79	2 187	2 241	-2	77	2 187	2 241	-2
Cuba	82	199	184	8	81	189	175	8	84	1 538	1 427	8	81	1 462	1 357	8
Nigeria	83	183	169	8	97	90	80	12	81	2 121	1 873	13	97	879	870	1
Syrian Arab Republic	84	162	132	23	82	159	129	23	87	1 468	1 415	4	82	1 437	1 385	4
Bolivia	85	153	132	16	90	106	95	12	83	1 570	1 519	3	91	1 050	1 021	3
Angola	86	147	126	16	84	137	119	15	100	760	680	12	101	671	605	11
Suriname	87	146	136	8	83	146	136	8	92	1 121	1 131	-1	87	1 121	1 131	-1
Myanmar	88	145	134	9	89	108	98	11	82	1 611	1 470	10	85	1 200	1 093	10
Namibia	89	139	171	-19	85	137	168	-18	85	1 498	1 668	-10	79	1 473	1 640	-10
Azerbaijan	90	136	122	12	86	135	110	23	89	1 428	1 274	12	84	1 416	1 148	23
Seychelles	91	134	182	-26	87	134	181	-26	88	1 431	1 452	-1	83	1 425	1 446	-1
Turkmenistan	92	132	185	-29	91	102	126	-19	86	1 475	1 955	-25	88	1 088	1 310	-17
Armenia	93	114	103	11	88	114	103	11	90	1 194	1 074	11	86	1 194	1 074	11
Papua New Guinea	94	112	94	20	102	68	56	21	95	997	728	37	108	544	386	41
Madagascar	95	109	88	24	94	99	79	25	96	983	819	20	98	872	719	21
Bulgaria	96	104	115	-9	92	100	111	-10	91	1 126	1 248	-10	89	1 083	1 202	-10
Total for above countries (98) [6]		601 419	538 201	12		414 536	365 157	14		4 668 771	4 324 648	8		2 859 370	2 635 036	9
Total for other countries		1 611	1 455			1 449	1 315			16 131	15 070			14 436	13 505	
Total for 190 ICAO Member States		603 031	539 655	12		415 985	366 472	14		4 684 902	4 339 719	8		2 873 806	2 648 541	9

1. Most 2010 data are estimates, thus the ranking and the rate of increase or decrease may change when final data become available.
2. For statistical purposes, the data for China excludes the traffic for the Hong Kong and Macao Special Administrative Regions (Hong Kong SAR and Macao SAR), and that of the Taiwan province of China.
3. Traffic for the Hong Kong Special Administrative Region (SAR).
4. Traffic for the Macao Special Administrative Region (SAR).
5. Three States – Denmark, Norway and Sweden.
6. Includes the States listed in note 5.

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

Table 6. Freight tonne-kilometres performed on scheduled services

(countries and groups of countries whose airlines performed more than 25 million freight tonne-kilometres in 2010[1])

Country or group of countries	FREIGHT TONNE-KILOMETRES PERFORMED (millions)							
	Total operations (international and domestic)				International operations			
	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)
United States	1	39 149	35 084	12	1	23 252	19 937	17
China [2]	2	17 194	11 976	44	3	12 170	7 575	61
Hong Kong SAR[3]		7 076	8 236	-14		7 076	8 236	-14
Macao SAR[4]		37	32	14		37	32	14
Republic of Korea	3	12 648	8 551	48	2	12 583	8 480	48
United Arab Emirates	4	9 666	7 781	24	4	9 666	7 781	24
Germany	5	8 906	6 871	30	5	8 901	6 863	30
Japan	6	8 303	7 018	18	6	7 372	6 171	19
Singapore	7	7 088	6 559	8	7	7 088	6 559	8
United Kingdom	8	6 108	5 864	4	8	6 107	5 862	4
France	9	5 343	4 894	9	9	5 282	4 818	10
Luxembourg	10	5 178	4 652	11	10	5 178	4 652	11
Netherlands	11	5 004	3 960	26	11	5 004	3 960	26
Russian Federation	12	3 532	2 306	53	13	2 946	1 953	51
Qatar	13	2 946	1 953	51	12	2 863	1 814	58
Thailand	14	2 593	2 091	24	14	2 450	2 059	19
Malaysia	15	2 441	2 064	18	15	2 406	2 031	18
Brazil	16	2 138	1 782	20	25	1 986	1 890	5
Australia	17	2 131	2 032	5	16	1 443	1 069	35
Canada	18	1 764	1 347	31	17	1 422	996	43
India	19	1 654	1 235	34	21	1 348	1 129	19
Colombia	20	1 486	1 043	42	18	1 310	1 202	9
Chile	21	1 400	1 179	19	19	1 292	968	33
Saudi Arabia	22	1 325	1 138	16	23	1 272	1 012	26
Belgium	23	1 310	1 202	9	20	1 251	1 072	17
Spain	24	1 286	1 002	28	24	1 196	930	29
Switzerland	25	1 273	1 013	26	22	1 098	915	20
Turkey	26	1 037	729	42	26	1 016	710	43
Italy	27	991	889	11	27	988	886	12
Israel	28	848	688	23	28	848	688	23
New Zealand	29	841	770	9	29	841	770	9
Bahrain	30	768	577	33	30	768	577	33
Finland	31	729	485	50	31	729	484	51
South Africa	32	727	682	7	32	697	631	11
Scandinavia[5]	33	564	323	75	33	562	320	76
Indonesia	34	518	401	29	45	436	404	8
Mexico	35	494	458	8	34	429	341	26
Austria	36	429	342	26	35	355	286	24
Viet Nam	37	428	311	37	39	329	279	18
Philippines	38	402	296	36	41	321	254	27
Portugal	39	369	301	22	36	291	202	44
Sri Lanka	40	329	279	18	37	274	281	-2

Country or group of countries	FREIGHT TONNE-KILOMETRES PERFORMED (millions)							
	Total operations (international and domestic)				International operations			
	Rank number in 2010	2010	2009	Increase or decrease (%)	Rank number in 2010	2010	2009	Increase or decrease (%)
Ethiopia	41	321	254	27	38	252	184	37
Pakistan	42	282	270	4	43	245	271	-10
Kuwait	43	274	281	-2	40	241	242	0
Kenya	44	245	272	-10	42	203	101	102
Peru	45	216	107	103	44	190	163	16
Egypt	46	188	177	6	46	187	176	6
Mauritius	47	179	153	18	47	179	152	18
Jordan	48	174	138	26	48	174	138	26
Uzbekistan	49	154	76	102	49	153	76	102
Argentina	50	149	148	1	51	145	110	33
Ireland	51	145	110	33	50	136	136	0
Brunei Darussalam	52	129	103	26	52	129	103	26
Ecuador	53	104	103	0	53	96	96	0
Bangladesh	54	80	97	-18	54	79	97	-19
Iceland	55	78	86	-10	55	78	86	-10
Angola	55	78	64	22	56	77	63	22
Poland	57	76	55	37	57	76	55	37
Iran (Islamic Republic of)	58	74	82	-10	59	69	52	33
Ukraine	59	70	53	32	58	63	71	-11
Morocco	60	63	50	26	61	62	76	-18
Fiji	61	62	76	-18	60	60	49	22
Kazakhstan	62	42	37	13	65	39	36	6
Lebanon	62	39	36	6	62	37	38	-3
Cyprus	64	37	38	-3	63	34	30	14
Greece	65	34	31	9	64	32	28	13
Uganda	66	30	27	13	66	30	27	13
Cuba	66	30	27	12	77	28	26	10
Total for the above countries (68) [6]		171 806	143 343	20		145 979	119 762	22
Total for other countries		371	409			341	384	
Total for 190 ICAO Member States		172 177	143 752	20		146 321	120 146	22

1. Most 2010 data are estimates, thus the ranking and the rate of increase or decrease may change when final data become available.
2. For statistical purposes, the data for China excludes the traffic for the Hong Kong and Macao Special Administrative Regions (Hong Kong SAR and Macao SAR), and that of the Taiwan province of China.
3. Traffic for the Hong Kong Special Administrative Region (SAR).
4. Traffic for the Macao Special Administrative Region (SAR).
5 Three States – Denmark, Norway and Sweden.
6 Includes the States listed in note 5.

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

Table 7. Estimated international non-scheduled revenue passenger traffic, 2001–2010

Category	Millions of passenger-kilometres performed									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Non-scheduled traffic[1]	272 790	244 930	240 720	266 590	262 560	245 105	241 730	223 360	197 690	210 475
Annual change (%)	2.8	-10.2	-1.7	10.7	-1.5	-6.6	-1.4	-7.6	-11.5	6.5
Scheduled traffic	1 726 580	1 736 070	1 738 510	2 015 070	2 199 940	2 374 810	2 576 130	2 682 761	2 648 541	2 873 806
Annual change (%)	-3.6	0.5	0.1	15.9	9.2	7.9	8.5	4.1	-1.3	8.5
Total traffic	1 999 370	1 981 000	1 979 230	2 281 660	2 462 500	2 619 915	2 817 860	2 906 121	2 846 231	3 084 281
Annual change (%)	-2.7	-0.9	-0.1	15.3	7.9	6.4	7.6	3.1	-2.1	8.4
Non-scheduled traffic as percentage of total	13.6	12.4	12.2	11.7	10.7	9.4	8.6	7.7	6.9	6.8

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 8. Traffic at world's major airports

Top 25 airports ranked by total passengers, 2010

Rank No.	City	Airport	Passengers embarked and disembarked 2010 (thousands)	2009 (thousands)	2010/2009 (%)	Aircraft movements 2010 (thousands)	2009 (thousands)	2010/2009 (%)
1	Atlanta, GA	Hartsfield-Jackson Atlanta International	89 332	88 032	1.5	950	970	-2.1
2	Beijing	Beijing Capital International	73 948	65 375	13.1	518	488	6.2
3	Chicago, IL	O'Hare International	67 027	64 398	4.1	883	828	6.7
4	London	Heathrow	65 882	66 037	-0.2	455	466	-2.4
5	Tokyo	Haneda (Tokyo International)	64 069	61 934	3.4	342	336	1.8
6	Los Angeles, CA	Los Angeles International	58 976	56 521	4.3	576	545	5.7
7	Paris	Charles de Gaulle	58 165	57 907	0.4	492	525	-6.3
8	Dallas/Fort Worth, TX	Dallas-Fort Worth International	56 820	56 030	1.4	651	639	1.9
9	Frankfurt	Frankfurt	52 945	50 891	4.0	456	456	0.0
10	Denver, CO	Denver International	52 211	50 167	4.1	636	612	3.9
11	Hong Kong	Hong Kong International	50 349	45 581	10.5	316	288	9.7
12	Madrid	Barajas	49 764	48 221	3.2	428	430	-0.5
13	Dubai	Dubai International	47 181	40 902	15.4	307	281	9.2
14	New York, NY	John F. Kennedy International	46 487	45 915	1.2	397	415	-4.3
15	Amsterdam	Schiphol Amsterdam	45 217	43 570	3.8	397	402	-1.3
16	Jakarta	Jakarta Soekarno-Hatta International	43 981	37 144	18.4	309	273	13.2
17	Bangkok	Bangkok Suvarnabhumi International	42 785	40 500	5.6	270	258	4.7
18	Singapore	Changi	42 039	37 204	13.0	268	245	9.4
19	Guangzhou	Guangzhou Baiyun International	40 976	37 049	10.6	329	309	6.5
20	Shanghai	Shanghai Pudong International	40 579	31 921	27.1	332	288	15.3
21	Houston, TX	George Bush Intercontinental	40 477	40 007	1.2	531	538	-1.3
22	Las Vegas, NV	McCarran International	39 757	40 469	-1.8	506	511	-1.0
23	San Francisco, CA	San Francisco International	39 392	37 224	5.8	387	380	1.9
24	Phoenix, AZ	Sky Harbor International	38 552	37 825	1.9	449	457	-1.8
25	Charlotte, NC	Charlotte-Douglas International	38 254	34 537	10.8	529	509	3.9
		Total	1 285 165	1 215 361	5.7	11 714	11 450	2.3

Top 25 airports ranked by international passengers, 2010

Rank No.	City	Airport	Passengers embarked and disembarked 2010 (thousands)	2009 (thousands)	2010/2009 (%)	Aircraft movements 2010 (thousands)	2009 (thousands)	2010/2009 (%)
1	London	Heathrow	61 041	60 782	0.4	402	408	-1.5
2	Paris	Charles de Gaulle	53 150	53 015	0.3	438	429	2.1
3	Hong Kong	Hong Kong International	50 349	45 581	10.5	307	279	10.0
4	Frankfurt	Frankfurt	46 414	44 609	4.0	388	388	0.0
5	Dubai	Dubai International	46 314	40 902	13.2	307	258	19.0
6	Amsterdam	Schiphol Amsterdam	45 215	43 567	3.8	389	391	-0.5
7	Singapore	Changi	42 039	37 204	13.0	264	240	10.0
8	Seoul	Incheon International	32 950	28 208	16.8	210	194	8.2
9	Bangkok	Bangkok Suvarnabhumi International	32 942	30 280	8.8	192	182	5.5
10	Tokyo	Narita International	32 141	30 862	4.1	170	171	-0.6
11	Madrid	Barajas	31 051	29 388	5.7	245	238	2.9
12	London	Gatwick	27 870	28 721	-3.0	186	197	-5.6
13	Munich	Franz Josef Strauss	25 259	23 265	8.6	266	270	-1.5
14	Taipei	Taiwan Taoyuan International	25 114	21 617	16.2	156	138	13.0
15	Kuala Lumpur	Kuala Lumpur International	23 771	19 402	22.5	158	142	11.3
16	Rome	Fiumicino	23 281	21 096	10.4	190	178	6.7
17	New York, NY	John F. Kennedy International	23 103	21 900	5.5	145	142	2.1
18	Zurich	Zurich	22 330	21 409	4.3	232	214	8.4
19	Istanbul	Istanbul Ataturk International	20 343	18 396	10.6	179	170	5.3
20	Shanghai	Shanghai Pudong International	19 471	15 317	27.1	155	137	13.1
21	Toronto	Toronto Pearson International	19 204	16 548	16.1	240	216	11.1
22	Copenhagen	Copenhagen	18 964	17 620	7.6	199	183	8.7
23	Vienna	Vienna International	18 882	17 438	8.3	228	227	0.4
24	Antalya	Antalya International	18 319	15 211	20.4	112	97	15.5
25	Dublin	Dublin	18 045	19 862	-9.1	141	152	-7.2
		Total	777 562	722 200	7.7	5 899	5 641	4.6

Source.— ICAO Air Transport Reporting Form I and airport websites.

Table 9. Operating and net results[1]
(scheduled airlines of ICAO Member States)

Year	Operating revenues USD (millions)	Operating expenses USD (millions)	Operating result		Net result[2]		Income taxes USD (millions)
			Amount USD (millions)	Percentage of operating revenues	Amount USD (millions)	Percentage of operating revenues	
2001	307 500	319 300	-11 800	-3.8	-13 000	-4.2	3 610
2002	306 000	310 800	-4 800	-1.6	-11 300	-3.7	2 300
2003	321 800	323 300	-1 500	-0.5	-7 500	-2.3	-1 460
2004	378 800	375 500	3 300	0.9	-5 600	-1.5	-2 560
2005	413 300	408 900	4 400	1.1	-4 100	-1.0	-2 800
2006	465 200	450 200	15 000	3.2	5 000	1.1	-3 380
2007	509 800	489 900	19 900	3.9	14 700	2.9	-5 370
2008	569 500	570 600	-1 100	-0.2	-26 100	-4.6	2 240
2009[3]	475 800	473 900	1 900	0.4	-4 600	-1.0	-1 580
2010[3]	546 500	524 800	21 700	4.0	15 800	2.9	-1 800

1. Revenues and expenses are estimated for non-reporting airlines.
2. The net result is derived from the operating result by adding (with plus or minus sign as appropriate) non-operating items (such as interest and direct subsidies) and income tax. The operating and net results quoted, particularly the net results, are the small differences between the estimates of large figures (revenues and expenses) and are therefore susceptible to substantial uncertainties.
3. Preliminary data. The net results for 2009 and 2010 have been provisionally estimated and exclude exceptional accounting items.

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

Table 10. Commercial transport fleet[1] of ICAO Member States at the end of each year, 2001–2010

Year	Turbojet		Turboprop		Piston-engined		Total aircraft all types
	Number	Percentage	Number	Percentage	Number	Percentage	
2001	15 923	78.8	4 162	20.6	118	0.6	20 203
2002	16 508	80.1	3 978	19.3	119	0.6	20 605
2003	16 931	81.0	3 854	18.4	110	0.5	20 895
2004	17 682	82.0	3 784	17.5	98	0.5	21 564
2005	18 221	82.7	3 708	16.8	94	0.4	22 023
2006	18 890	83.1	3 765	16.6	86	0.4	22 741
2007	19 893	83.7	3 803	16.0	80	0.3	23 776
2008	19 884	83.8	3 775	15.9	71	0.3	23 730
2009	20 275	84.1	3 768	15.6	67	0.3	24 110
2010	20 939	84.8	3 678	14.9	67	0.3	24 684

1. Aircraft having a maximum take-off mass of less than 9 000 kg (20 000 lb) are not included.

Source.— OAG Aviation Solutions.

Table 11. 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
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
2009	23	5	3	1	0	0	14[3]	4	3
2010	14	0	1	1	0	1	11[3]	13	6

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, funded by the Government of Afghanistan, was to enhance the capability of the Ministry of Transport and Civil Aviation (MoTCA) to take over responsibility for the management, operation and maintenance of those facilities and services at Kabul International Airport that will be transferred from the North Atlantic Treaty Organization (NATO)/International Security Assistance Force (ISAF) to MoTCA at the end of the transitional period covered by the project. This project, which began in December 2007, was completed in December 2010.

Project achievements

Through a combination of ICAO experts providing direction and documentation together with OPAS staff delivering critically needed, internationally compliant services, the project continued to assist MoTCA in the transfer of Kabul Airport from military to civilian control. This project provided technical assistance in the areas of aeronautical information services, communication, navigation and surveillance, aerodrome operations, information technology, engineering, meteorology, rescue and fire fighting, air traffic control and English language proficiency. ATC simulators and a NOTAM system were procured. Eight Afghan meteorology forecasters received advanced and on-the-job training. An aerodrome operations, emergency procedures and safety management systems manual was completed. ICAO staff provided guidance and support to the airport, the Ministry and other stakeholders across many disciplines, accelerating the development of this important gateway to this nation.

Flight Safety Oversight

Project goal

The objective of this project, 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, which began in September 2008, was extended through February 2011.

Project achievements

The project continued to assist MoTCA to conduct flight operations surveillance and inspection activities, including airline operators and maintenance organizations. A Safety Board was established by MoTCA to rebuild MoTCA's oversight capability. The joint ICAO OPAS/Afghan flight safety team provided inspection of Afghan carriers while refurbishing the Ministry's flight safety department.

ARGENTINA

Modernization of the CNS/ATM Systems and Strengthening of the National Civil Aviation Agency (ANAC)

Project goal

The objective of this project, funded by the Government of Argentina, was to modernize the communications, navigation and surveillance/air traffic management (CNS/ATM) systems, which provide the infrastructure for national and regional air navigation. The project aimed to support safety and sustainability of civil aviation. This project, which began in September 2004, was completed in 2010.

Project achievements

Management of over three hundred local consultants was achieved. A plan was developed for the transfer of these consultants as new technical and administrative staff of the National Civil Aviation Administration. Actions were carried out to implement CNS/ATM systems in support of the air navigation services for the oceanic routes from Argentina to South Africa. Meteorological equipment installations were completed, and technical assistance for the maintenance of radars in Ezeiza and Córdoba was provided.

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 services, including the transfer of all missions and duties performed by the "Comando de Regiones Aéreas da la Fuerza Aérea Argentina". The project, which began in September 2007, was extended through December 2011.

Project achievements

As a result of the survey of the existing National Civil Aviation Administration (ANAC) operating procedures manuals, recommendations and an action plan were proposed to reinforce ANAC's regulatory capacity. Assistance to the government in the establishment and implementation of the State Safety Programme and Safety Management Programme was provided.

Assistance from the Argentinean Air Force to the National Civil Aviation Administration

Project goal

The objective of this project, funded by the Government of Argentina, is to provide search and rescue services (SAR) to the new National Civil Aviation Administration (ANAC). The project comprises the contracting of national professionals, acquisition of equipment, maintenance of services and training. This project began in July 2009 with an expected duration of three years.

Project achievements

Repairs and modifications on existing aircraft continued. Aircraft accessories, maintenance services and spares for aircraft and navaids were acquired.

BOLIVIA

Development of National Aviation

Project goal

The objective of this project, funded by the Government of Bolivia, is to continue to enable the Directorate General of Civil Aviation (DGCA) to efficiently perform

its safety oversight responsibilities and to strengthen the development of national aviation. This project began in December 2009 with an expected duration of 38 months.

Project achievements

The implementation of a quality management system based on ISO 9001 continued. The Bolivian Aeronautical Regulations were maintained in accordance with ICAO Annexes. With the assistance of ICAO international experts, the Internal Audit Unit issued recommendations for the improvement of the DGCA's management.

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, which began in 2005, was extended through 2011.

Project achievements

The appointment of the Flight Safety Director by ICAO as Operational Assistance (OPAS) was extended by one year. The Civil Aviation Master Plan was finalized. A set of regulations for the implementation of aerodrome certification and safety management systems in Botswana were developed. An airport certification guide was developed for the use of both the certifying authority and the airports' operators. Pre-certification visits were conducted at four airports. A training session was conducted for aerodrome inspectors to familiarize them with the utilization of the above-mentioned guide.

BRAZIL

Civil Aviation Professional Qualification and Research

Project goal

The objective of this project, funded by the Government of Brazil, was to enhance the professional qualifications and research capabilities of the Brazilian

civil aviation system through the provision of technical support, human resources, equipment and training to the National Civil Aviation Agency (ANAC). This project, which began in July 2001, was completed in 2010.

Project achievements

Through the project, ANAC personnel participated in meetings and conferences. Training activities were carried out in the fields of safety, aviation regulation and air transport, fatigue risk and other related areas, and included a course on "Flight Control Actuation System". Support in the development of civil aviation regulations in accordance with ICAO Standards and Recommended Practices (SARPs) was provided through two international consultancies. Video conferencing systems were acquired with a view to facilitating distance learning, the exchange of information and the establishment of a link with the Brazilian Delegation at ICAO.

CHINA

ICAO/China Developing Countries Training Programme

Project goal

The objective of this project, funded by the General Administration of the Civil Aviation Administration of China (CAAC), is for ICAO to assist in the administration of a programme to train participants from developing countries. The assistance covers the distribution of information to ICAO Member States and the issuance of letters of fellowship awards and letters of rejection. The project, which began in 2009, was extended through December 2011.

Project achievements

Sixty-three participants were selected from 21 developing countries for training in civil aviation safety management, basic approach radar control, air transport operation supervision, or navigation and aeronautical electronics, at the Civil Aviation Management Institute of China (CAMIC) or the Civil Aviation University of China (CAUC).

Assistance to Airport Administration of China (Macao (SAR)) (ADA)

Project goal

The objective of this project, funded by the Administration of Airports Ltd. of China (Macao (SAR)) (ADA), is to provide ADA with technical and operational

advice in the upgrade and replacement of communication, navigation and surveillance systems, in operation at the Macao International Airport. The project began in March 2010 with an expected duration of nine months.

Project achievements

Technical training has taken place. An all-weather operations system, Notice to Airmen (NOTAM) databases, voice communication system (VCS), very high frequency (VHF) and air traffic control (ATC) replacement systems were installed and tested. The installation process was initiated for new monopulse secondary surveillance radar (MSSR), surface movement radar (SMR), Doppler very high frequency omni-directional radio range (DVOR)/distance measuring equipment (DME), instrument landing system (ILS), and telemetry.

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), was 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 the broad economic, tourist and commercial development. This project, which began in March 2008, was completed in December 2010.

Project achievements

The Master Plan was further expanded and a Safety Management Systems course was delivered to Directorate General of Civil Aviation (DGCA) officials.

Integral Plan for the Modernization of the National Aerodromes Network

Project goal

The objective of this project, funded by the Government of Costa Rica, was 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, was completed in December 2010.

Project achievements

A company was entrusted to study the relocation of the Juan Santa Maria Airport.

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), was to strengthen the aeronautical authorities. This project, which began in March 2008, was completed in December 2010.

Project achievements

Activities to amend the General Aviation Law and reorganize the structure of the regulatory body as well as the service provider, as recommended by the Universal Safety Oversight Audit Programme (USOAP), continued. A draft version of the new aviation law continued to be developed by ICAO experts.

Civil Aviation Purchasing Service (CAPS)

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), is to procure equipment to strengthen the aeronautical authorities. This project, which began in April 2007, was extended through December 2010.

Project achievements

Runway sweeper, runway approach lights, voice communication control systems (VCCS), radar spare parts, passenger boarding bridges and two lifting vehicles for disabled passengers were purchased.

CUBA

Civil Aviation Purchasing Service (CAPS)

Project goal

The objective of this project, funded by the Government of Cuba, is to assist the Cuban Civil Aviation Institute (IACC) to modernize its civil aviation infrastructure. The project began in October 2010 with an expected duration of three years.

Project achievements

A visit to Cuba was conducted to identify the project's technical and financial requirements, including maintenance of the José Martí International Airport (AIJM); expansion of the apron, and construction of the Santa Clara Airport taxiway; procurement of embarkation tunnels for AIJM; procurement of a primary surveillance radar; procurement of an aerodrome control tower for Holguin Airport; and procurement of an aerodrome control tower for Cayo Largo Airport. Subsequently, technical specifications were drafted and possible financing solutions were identified. A call for tender was issued and bids evaluated.

DJIBOUTI

Reinforcement of the safety oversight capability of the Civil Aviation Authority of Djibouti

Project goal

The objective of this operational assistance (OPAS) project, funded by the United States Safe Skies Programme (SSP) for Africa with a contribution from the International Financial Facility for Aviation Safety (IFFAS) and the Government of Djibouti is to assist the government in addressing the safety shortcomings identified by the ICAO comprehensive systems approach audit. As a result, an effective system on performance of certification and surveillance functions in the field of personnel licensing, flight operations and airworthiness will be implemented in Djibouti. This project, which began in April 2009, was extended through 2012.

Project achievements

The ICAO inspectors resigned and were not replaced. As a result, no activity was implemented in 2010 under this project.

DOMINICA

Aeronautical Study for the Upgraded Melville Hall Airport

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), is to assist the DGCA in carrying out an aeronautical study for the upgraded Melville Hall Airport. This project, which began in February 2010, was completed in October 2010.

Project achievements

Two missions, one by a Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS) expert and another by an aerodromes, air routes and ground aids (AGA) expert, were carried out to complete the aeronautical study of the upgraded Melville Hall Airport.

DOMINICAN REPUBLIC

TRAINAIR Programme for the Instituto Dominicano de Aviación Civil

Project goal

The objective of this project, funded by the Instituto Dominicano de Aviación Civil (IDAC), was to upgrade and expand the capabilities of the methodological training system of IDAC through the introduction of the ICAO TRAINAIR approach in their training division. This project, which began in April 2009, was completed in 2010.

Project achievements

The qualified TRAINAIR Course Developers continued to use the TRAINAIR methodology for developing Standardized Training Packages (STPs). IDAC invited the Central American Agency for Aviation Safety Oversight (ACSA) Delegation to the Symposium on the New Generation of Aviation Professionals in the aeronautical industry. In addition, a project was formulated to offer international fellowships to officials in civil aviation disciplines that are not available in the country. IDAC obtained ICAO's approval for STP 133/195 Air Traffic Services/ATS Reporting Office (ATS/ARO).

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; modernize the air traffic management system; advise the government on the establishment of a concession for the operation of existing and new airports in Guayaquil and Quito; 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 started in 1998, was extended to December 2011.

Project achievements

A very small aperture terminal (VSAT) contract was signed and the import and delivery of all VSAT equipment was coordinated. With the assistance of ICAO experts and representatives of the contractor, all site surveys and sight acceptance test (SAT) documents were completed. ICAO experts and representatives of the contractor verified all processes and developed training plans. DGCA staff received training in Singapore.

EGYPT

Assistance for Renovation of Terminal 2 at the Cairo International Airport

Project goal

The objective of this project, funded by the Government of Egypt, was to review the design plans and documentation for the renovation and expansion of the Terminal at Cairo International Airport, to assess their compliance with national regulations and ensure that the tasks are carried out in accordance with ICAO Standards and Recommended Practices (SARPs). The project, which started in 2010, was completed.

Project achievements

Two ICAO consultants assisted the project's national counterparts in Egypt as required. The project successfully met its objectives and the project terminal report was submitted to the Egyptian Authority.

EQUATORIAL GUINEA

Reinforcement of National and Institutional Capacity in Civil Aviation

Project goal

The objective of this project, funded by the Government of Equatorial Guinea, is to establish an autonomous Civil Aviation Authority, with the appropriate level of staffing and competency for the performance of its security oversight functions in the areas of operations and airworthiness of aircraft and for the licensing of aircraft and flight operations personnel. Originally funded under a cost-sharing

arrangement between the government and the United Nations Development Programme which expired in 2009, this project began in 2004 and was extended through 2011.

Project achievements

The project coordinator/flight operations expert and the airworthiness expert were extended and four national professionals were recruited. A State Safety Oversight System and a control and surveillance mechanism were developed in accordance with ICAO requirements.

GABON

Strengthening of the Agence Nationale de l'Aviation Civile (ANAC) Aviation Regulatory Oversight System

Project goal

The objective of this operational assistance (OPAS) project, funded by Gabon, is to assist the government to address safety shortcomings identified by the ICAO comprehensive systems audit conducted in May 2007. The project will be carried out in two phases. First, remedial actions will be taken to mitigate safety concerns. During the second phase, the Civil Aviation Authority will be reinforced to perform its task of safety oversight in the fields of personnel licensing, airworthiness and flight operations. The project, which commenced in November 2008, was extended through 2011.

Project achievements

Significant improvement in the performance of certification and surveillance functions was realized. Implementation and enforcement of a core set of procedures for the various surveillance activities in the fields of personnel licensing, airworthiness and flight operations continued. A new operator was certified. The level of understanding of the procedural approach was demonstrated by all the personnel involved. A formal inspector training programme, including on-the-job training, was established and delivered by the ICAO project inspectors or national senior inspectors. Five personnel licensing/flight operations and seven airworthiness inspectors were recruited and trained. The law establishing the ANAC was reviewed by ICAO and comments were submitted for its amendment by the Government of Gabon.

GUATEMALA

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 and Recommended Practices (SARPs). This project, which began in 2005, has been extended through December 2011.

Project achievements

Due to the reorientation of government priorities, implementation activities in 2009 were minimal and included only a design of Puerto Barrios Airport terminal building. Personnel contracts were extended in order to conclude pending work.

HAITI

Post 2010 Haiti Earthquake Reconstruction and Modernization of the Air Navigation Infrastructure, Improving Services and Strengthening of the Civil Aviation Authority

Project goal

This project is funded by the National Civil Aviation Office (OFNAC). Phase I is aimed at accomplishing the post-2010 Haiti earthquake reconstruction and modernization of air navigation infrastructure as well as improving the provision of services which will contribute to the effectiveness of the air operations at Toussaint Louverture International Airport in Port-au-Prince, the Port-au-Prince Flight Information Region (FIR)/Area Control Centre (ACC) and the Cap Haïtien International Airport. Phase II is aimed at strengthening the administrative and financial autonomy of the OFNAC as the air transport regulating agency and translating the basic civil aviation law that was started in Phase I of the Project. In addition, Phase II will provide training to operational, technical and management staff, which will help them to implement improvements for the OFNAC in order to comply with ICAO Standards and Recommended Practices (SARPs), regional requirements and an English proficiency level IV standard. The project, which began in 2009 for the purpose of strengthening of the Civil Aviation Authority, was expanded in its objective and extended through June 2014.

Project achievements

A Letter of Understanding (LoU), calling for the creation of a Civil Aviation Steering Committee (CASC), was signed by the government. The principles of the LoU establishing the CASC were approved by the members of the Interim Haiti Reconstruction Commission during a meeting held in Washington in August 2010. Terms of Reference were prepared and submitted to the government for an assessment mission which would provide the technical requirements for a World Bank emergency grant regarding the repair of two very-high frequency (VHF) omni-directional radio ranges, the upgrade of VHF systems, pavement refurbishment, the replacement of the approach lighting system and the training of air traffic controllers.

INDIA

Techno-economic Feasibility Study for the Establishment of a new International Airport for Chennai including a Study on Dual Airports Operations

Project goal

The objective of this project, funded by the Airports Authority of India (AAI), was to prepare a techno-economic feasibility study for the construction of a second international airport at Chennai and includes a study on dual airports operations. The study was to establish a basis for the Government of India to make a decision regarding the construction of a second airport for metropolitan Chennai. The project, which began in 2009, was completed in December 2010.

Project achievements

Following project approval by AAI based on the proposed operational strategy, ICAO carried out the tendering and the bid review process for the study and provided recommendations to AAI. The contract was awarded to the winning bidder, which presented the final report of the study to ICAO for finalization and submission to AAI in December 2010.

Study on the Establishment of a Civil Aviation Authority of India

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation of India, Ministry of Civil Aviation (DGCA/MoCA), was to provide the government with a study on the conversion of the existing Directorate General of Civil Aviation into an autonomous Civil Aviation Authority (CAA), which would operate in line with ICAO policy on autonomous civil aviation authorities. The project, which began in October 2009, was completed in February 2010.

Project achievements

A report setting out the requested study and related recommendations as well as draft legislation for the establishment of CAA India was delivered to the government. A verbal presentation of the report was given to the Ministry of Civil Aviation, Government of India, which resulted in the decision to proceed with the implementation of the report's recommendations.

Enhancement of Aerodrome Safety Oversight Capability – Phase I

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA) of India, was to enhance the aerodrome safety oversight capability of the aerodrome standards directorate of the DGCA on the effective performance of its safety oversight duties, functions and responsibilities, as well as the implementation of the corrective action plan on the subject of aerodromes and ground aids prepared by the State to address the ICAO USOAP audit observations and recommendations. The project, which began in November 2009, was completed.

Project achievements

A report setting out the requested enhancements and recommendations was delivered to the Government of India. The DGCA has used the report as the basis for its actions on enhancement of aerodrome safety oversight.

Enhancement of Flight Safety Oversight Capability

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA) of India, was to provide assistance to the DGCA in the systemic improvement in its flight safety oversight capability and its compliance with ICAO Standards and Recommended Practices and national requirements. The project, which began in April 2010, was completed in December 2010.

Project achievements

A flight safety expert/project coordinator, a flight operations expert and an airworthiness expert carried out assessments and provided recommendations for improvements in efficiency, performance, and capability of the organization and the existing staff in conducting their safety oversight responsibilities, taking into account Universal Safety Oversight Audit Programme (USOAP) audit results. This included a review of civil aviation legislation, an evaluation of organizational

structure, an analysis of task performance and staff strength, inspections of the industry and on-the-job-training, drafting and provision of some regulations and guidance material, and the conducting of practical training courses to national inspectors. A report covering the main activities of the project was submitted to the DGCA.

Establishment of Air Navigation Services (ANS) Safety Oversight Capability

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA) of India, is to provide assistance to the DGCA in the establishment and effective functioning of an Air Navigation Services (ANS) Directorate in the performance of its ANS regulatory and safety oversight duties, functions and responsibilities, and in the implementation of the Corrective Action Plan to address the ICAO Universal Safety Oversight Audit observations and recommendations. The project began in October 2010 with an expected duration of 12 months.

Project achievements

The project coordinator/team leader and meteorology expert submitted the initial project work plan for comments and approval. Experts in the fields of communications, navigation and surveillance (CNS), search and rescue (SAR), and aeronautical information systems (AIS) joined this project team in the course of the year.

Development/Modernization of Indira Gandhi International Airport, New Delhi

Project goal

The objective of this project, funded by the Delhi International Airport Limited (DIAL), is to assist DIAL in the technical review of the design, construction and installation of airside facilities, with a primary focus on the review of the level of compliance with the relevant ICAO Standards and Recommended Practices (SARPs). The project, which began in 2008, was extended to December 2011.

Project achievements

An air traffic forecasting expert provided a study on the air traffic forecast of the New Delhi catchment area.

Master Plan/Detailed Project Report/Preliminary Designs Review for Navi Mumbai International Airport (NMIA)

Project goal

The objective of this project, funded by the City and Industrial Development Corporation of Maharashtra (CIDCO), is to provide assistance to CIDCO in the review of the NMIA Master Plan, Detailed Project Report and preliminary designs being developed by CIDCO's prime consultant. ICAO reviews will focus primarily on assuring compliance of the plans/documents with ICAO Standards and Recommended Practices (SARPs), DGCA issued Civil Aviation Requirement (CAR) and Bureau of Civil Aviation Security issued guidelines. The project began in 2008 with an expected duration of four years.

Project achievements

A SARPs compliance review of the Master Plan for NMIA by a team of ICAO technical experts was carried out and a report was issued on the findings and recommendations for the further planning of this greenfield airport.

ICAO-India Developing Countries Training Programme

Project goal

The objective of this project, which is funded by the Airports Authority of India (AAI), is to assist in the programme administration to train participants from developing countries selected by the National Institute of Aviation Management and Research (NIAMAR), now renamed India Aviation Academy (IAA), at New Delhi. The assistance covers the distribution of related information to ICAO Member States and the issuance of fellowship awards letters and rejection letters. This project began in October 2008 and is ongoing.

Project achievements

ICAO initiated the recruitment of an expert in airport commercial management and another expert in airport security to support NIAMAR in the development of two courses conducted at the NIAMAR training institute.

INDONESIA

Enhancement of Safety Oversight Capability of the Directorate General of Civil Aviation

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), is to enhance its capability in flight safety oversight through improved organization, increase availability of properly trained and well qualified safety oversight inspectors and surveyors, update legislation, regulations and procedures, and improve implementation and compliance with ICAO Standards and Recommended Practices (SARPs), guidance material and the Global Aviation Safety Plan (GASP) proactive approach to flight safety and the reduction of aircraft accidents. The project began in 2009 with an expected duration of three years.

Project achievements

Ten new cabin safety inspectors were trained and courses provided to approximately 240 personnel on a variety of safety-related subjects. On-the-job training was provided to approximately 20 personnel. DGCA Civil Aviation Safety Regulations, staff instructions, checklists and related regulations were updated to comply with Annex 6. Staff instructions on human resources development were reviewed and recommendations were made on necessary revisions. Documentation addressing safety concerns with an emphasis on surveillance oversight, corrective actions and training was processed. The DGCA Corrective Action Plan for the ICAO Universal Safety Oversight Audit (USOAP) and ICAO Coordinated Validation Mission (ICVM) were completed. Project personnel assisted the DGCA in preparing for the European Union (EU) Air Safety Committee (ASC) Meeting and coordinated with the EU on safety matters. The project coordinator accompanied the Director General to the ASC Meeting, culminating in the successful removal of two Indonesian Airlines from the EU ban to overfly European territory.

Civil Aviation Transformation Team (CATT) for the implementation of a Civil Aviation Strategic Action Plan

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), is to provide assistance to the DGCA in the establishment of a Civil Aviation Transformation Team (CATT) for the effective management and implementation of the DGCA's Civil Aviation Strategic Action Plan (CASAP), which provides a roadmap for the enhancement of Indonesia's capabilities in the

fields of aviation safety and security, to a level consistent with international and national requirements. The project began in June 2009 with a planned duration of three years.

Project achievements

The CATT developed a programme management plan to upgrade the DGCA's aviation safety oversight capabilities. The national aviation safety programme was developed and approved. The implementation of the safety management system for all aviation service providers is in progress. A national civil aviation security programme was developed. The European Union (EU) ban on two Indonesian Airlines was lifted in June 2010.

LIBYAN ARAB JAMAHIRIYA

Communication and Navaids Consultant

Project goal

The objective of this project, funded by the Government of the Libyan Arab Jamahiriya, was to review the adequacy of existing communication and navigational aids systems for several airports to meet the Libyan Arab Jamahiriya's needs in complying with ICAO Standards and Recommended Practices (SARPs). This project, which began in 2010, was completed.

Project achievements

One consultant reviewed the navigational aids system for several airports in consultation with government officials and the final report was submitted to the Libyan Arab Jamahiriya Civil Aviation Authority.

MEXICO

Course on Airport Certification

Project goal

The objective of this project, funded by the Government of Mexico, is to assist the Directorate General of Civil Aviation (DGCA) by providing training to airport personnel on airport certification with a view to strengthening the national aeronautical system. Project activities include courses on the subject of aerodromes, air routes and ground aids based on ICAO Standards and Recommended Practices (SARPs) and the Universal Safety Oversight Audit

Programme (USOAP) recommendations to be delivered by international experts, including field work in selected airports. This project, which began in June 2008, was postponed until further notice.

Project achievements

The selection of experts/instructors was concluded. After coordination between Mexican authorities and ICAO regarding logistical support related to the course facilities, the course was postponed to 2011 due to lack of funding by the DGCA.

NAMIBIA

Safety Oversight and Security

Project goal

The objective of this project, funded by the Government of Namibia, is to assist the Directorate of Civil Aviation (DCA) in the reinforcement of its safety and security oversight capabilities. It comprises an assessment phase to identify remaining shortfalls after the ICAO Universal Safety Oversight Audit Programme (USOAP) audit conducted in 2006, followed by the implementation of corrective actions to address these shortfalls, and a second phase to establish a sustainable certification and surveillance system. The project, which began in 2009, was extended through 2012.

Project achievements

An international air law expert was recruited to implement the Namibian Civil Aviation Code. A team of air traffic controllers was also recruited to train all air traffic control (ATC) national personnel. The State's regulatory framework was upgraded; safety and security personnel were recruited and trained and the DCA's capability to meet its safety oversight obligations was enhanced.

NEPAL

Introduction of the TRAINAIR Programme at the Civil Aviation Academy of Nepal

Project goal

The objective of this project, funded by the Civil Aviation Authority of Nepal (CAAN), is to introduce the TRAINAIR Programme at the Civil Aviation Academy of Nepal by establishing a centralized Course Development Unit, completing at

least one Standardized Training Package (STP) and adapting at least one imported STP from the international TRAINAIR Sharing Pool. The project began in October 2010 with an expected duration of nine months.

Project achievements

The implementation of the TRAINAIR methodology at the Civil Aviation Academy was initiated by the ICAO TRAINAIR expert.

Air Traffic Services (ATS) Surveillance and Tribhuvan International Airport (TIA) Approach and Landing Systems — Stage I

Project goal

The objective of this project, funded by the Civil Aviation Authority of Nepal (CAAN), was to assist CAAN in the identification and preparation of procurement documentation and tendering activities related to Nepal's surveillance system and the approach and landing system for the Tribhuvan International Airport in Kathmandu. The project, which began in July 2010, was completed.

Project achievements

One communications, navigation and surveillance expert/team leader and one air traffic management expert assisted the CAAN. A report including the requested study, related documentation and recommendations was submitted to CAAN.

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), was 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. In addition, the socio-economic development in the region would be stimulated through ecotourism. This project, which began in October 2008, was completed in 2010.

Project achievements

The Master Plan was completed and submitted to the government.

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, was extended through 2011.

Project achievements

Experts and operational assistance (OPAS) personnel contributed to improve oversight functions in the form of audits and inspections over the growing fleet of Omani operators. The Licensing Section and Air Traffic Control were adequately staffed with competent personnel and achieved their performance objectives. Ongoing development of civil aviation regulations and procedures in compliance with ICAO Standards and Recommended Practices (SARPs) progressed.

Aviation Legislation Consultant

Project goal

The objective of this project, funded by the Government of Oman, was to review the legislation of Oman. This project, which began in 2010, was completed.

Project achievements

One international consultant reviewed the Aviation Law and other basic aviation legislation in force, advised and assisted the national counterparts in amending the basic aviation legislation to provide for the establishment of a State Civil Aviation Organization with clear functions and responsibilities. The Aviation Law, in its English and Arabic versions, was amended and submitted to the government for approval.

PAKISTAN

Civil Aviation Purchasing Service Agreement for the Procurement of Complete Primary and Secondary Radar System, three Doppler VHF Omni-directional Radio Range/Distance Measurement Equipment (DVOR/DME) and two Instrument Landing Systems/Distance Measurement Equipment (ILS/DME)

Project goal

The objective of this project, funded by the Government of Pakistan, is to procure surveillance and navigation equipment to assist the government in the overall improvement of its flight safety standards. This project began in April 2010 with an expected duration of 30 months.

Project achievements

ICAO prepared the technical specifications for a complete primary and secondary radar system. A tender for three DVOR/DME and two ILS-DMEs was conducted and a technical evaluation of the bids was sent to the Pakistan Civil Aviation Authority (PCAA). A delegation from PCAA participated in contract negotiations with the selected suppliers.

PANAMA

Strengthening of the Tocumen International Airport of Panama

Project goal

The objectives of this project, funded by Tocumen International Airport, were 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, was completed in December 2010.

Project achievements

Thirty-nine Tocumen personnel were trained on airport procedures. A northern pier was constructed and equipment tendered. Civil works were carried out for passenger and cargo terminals, construction of hangars, platforms, parking areas, taxiways, airport sound barrier walls and perimeter fencing. The maintenance services contract, which included boarding gates, luggage conveyor belts and the acquisition of spare parts for equipment, was extended. Several contracts were signed for the procurement of airport systems and equipment.

Operational and Technical Strengthening of the Civil Aviation Authority of the Republic of Panama

Project goal

The objective of this project, which is funded by the Government of Panama, is to assist the Civil Aviation Authority to acquire the technical, operational and management expertise in the areas of air navigation and aerodromes including, communications, navigation and surveillance, safety and aviation security through the training of specialized technical and operational personnel, expert advice, procurement of equipment for the provision of services and strengthening the administrative and executive management of air navigation services and airport operations. The project began in 2009 with an expected duration of three years.

Project achievements

Secondary surveillance radar mode S was installed with the corresponding communication systems for data transfer. Maintenance and actualization of two control towers were carried out. Several contracts were signed for the procurement and installation of airport systems and equipment. Technological modernization of the aeronautical fixed telecommunication network, communications and aeronautical information services (AFTN/COM/AIS) was achieved. The Panamanian Aeronautical Regulations for Safety Oversight were defined in conjunction with the training and capacity building for inspectors and technical personnel in charge of these activities. A Quality Assurance Bureau was established.

PERU

Modernization of Air Traffic Management

Project goal

The objective of this project, funded by the Corporación Peruana de Aeropuertos y Aviación Comercial (CORPAC S.A.), through the Government of Peru, is to modernize air traffic services in order to develop the necessary infrastructure to implement the air traffic management (ATM) system. The project includes human resources training, renewal of the area control centre (ACC), installation of a secondary surveillance radar (SSR) mode S and implementation of air traffic services. The project began in July 2009 with an expected duration of five years.

Project achievements

The sites for the installation of eight radars and the very small aperture terminal VSAT communication network across the country were prepared and a new air traffic control centre (ACC) building was constructed. The initial phase of training of personnel involved in the operation and maintenance of the equipment and systems was completed.

Modernization of the Air Navigation Systems

Project goal

The objective of this project, funded by the Government of Peru, is to assist the Corporación Peruana de Aeropuertos y Aviación Comercial (CORPAC S.A.) to procure an integrated instrument landing systems (ILS) Category III B with collocated distance measuring equipment (DME); an automatic weather observation system (AWOS) with runway visual range (RVR) and airfield lighting equipment upgrade to Category III B for the Lima International Airport, including the training of the technical personnel. This project, which began in October 2010, was completed in January 2011.

Project achievements

The acquisition of an integrated ILS Category III B was successfully completed and a contract was awarded to the winner of the proposal.

Institutional Strengthening of the DGCA — Phase II

Project goal

The objective of this project, funded by the Government of Peru, was to strengthen the Directorate General of Civil Aviation (DGCA) to develop technical standards and professional performance in the fields of air navigation, security and safety, so as to foster civil aviation air transport as an instrument of economic development. This project, which began in December 2007, was completed in 2010.

Project achievements

DGCA technical staff received training in several aeronautical fields. A total of 135 professionals and five national consultants were hired.

PHILIPPINES

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

Project goal

The objectives of this project, which is funded by the Civil Aviation Authority of the Philippines (CAAP) are to improve aviation safety by enhancing the capability of the CAAP in safety oversight through updated regulations and procedures; increase availability of well-trained and qualified inspectors and surveyors; and enhance organizational authority and autonomy to achieve effective safety oversight of air operators, aircraft maintenance organizations, aerodromes and air traffic services, together with the enforcement of safety regulations, procedures and application of the ICAO Global Aviation Safety Plan (GASP) principles. This project, which began in May 2008, was extended through June 2011.

Project achievements

The ICAO project team analysed the results of the Universal Safety Oversight Audit Programme (USOAP) audit that was conducted in 2009. As a result, the number of operational assistance (OPAS) personnel engaged in flight operations and airworthiness was increased and additional National officers were recruited in the areas of airworthiness and approved training organizations oversight. After the initial training phase, staff was deployed to conduct certification audits under the supervision of the OPAS experts. The project continued to maintain a qualified and experienced workforce in the flight operations inspector section by contracting retired airline check pilots. Assistance was provided to the CAAP in addressing safety oversight requirements of the United States Federal Aviation Administration (FAA) and the European Union Air Safety Committee, which issued a ban on all operators of the Philippines to overfly European territory. Numerous civil aviation regulation (CAR) amendments, as well as changes to the handbooks, procedures and forms were prepared. The project team developed and delivered an action plan on how to lift ICAO's significant safety concerns (SSC) and return to Category I with the FAA. Team members advised key personnel of the new administration in the CAAP on essential challenges arising during re-certification of international and domestic operators, training organizations and maintenance organizations according to the new Standards. Surveillance schedules were developed and submitted and training for CAAP personnel continued.

Civil Aviation Purchasing Service Agreement with Mactan-Cebu International Airport Authority — Procurement of Two Instrument Landing Systems/ Distance Measurement Equipment (ILS/DME)

Project goal

The objective of this project, funded by the Mactan-Cebu International Airport Authority (MCIAA), is the procurement of various airport runway and air navigation systems in order to assist the MCIAA with the overall improvement of its flight safety system. This project began in April 2010 with an expected duration of 15 months.

Project achievements

After contract negotiations at ICAO Headquarters, the contract was awarded to the successful bidder in April 2010. A Factory Acceptance Test was conducted and the first equipment was delivered to the Philippines where the trenching works began.

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 developing and building the New Doha International Airport (NDIA), which will be completely independent of the existing airport. ICAO assistance consists of providing aerodrome engineering expertise as well as act as the CAA representative with the contractors and consultants. This project, which began in 2003, was extended until June 2011.

Project achievements

Advice was provided to the NDIA Steering Committee regarding the selection of contractors and suppliers in the fields of master planning and civil aviation/airport management with regard to the construction of the new airport. Most of the engineering work for the aerodrome was completed.

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 (CASA) and the Korea Civil Aviation Training Centre (KCATC) in the administration of a programme to train participants from developing countries selected by the CATC. This assistance covers the distribution of related information to ICAO Member States and the issuance of letters of fellowship awards and letters of rejection. The project, which began in July 2007, was extended through December 2011.

Project achievements

One hundred fifty-nine fellowship awards were issued by ICAO to participants from 57 developing countries for training conducted at the KCATC and the Incheon International Airport Corporation (IIAC) Aviation Academy.

SAINT LUCIA

Management Service Agreement (MSA)

Project goal

The objective of this project, funded by the Directorate General of Civil Aviation (DGCA), was to obtain ICAO technical assistance to strengthen the aeronautical authorities. This project, which began in February 2010, was completed.

Project achievements

Two missions were carried out to guide Saint Lucia authorities with respect to the National Power Plant Development Study and the use of corporate jets operating into George F.L. Charles Airport.

SAUDI ARABIA

Assistance to the 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; keep the GACA up to date on changes in the

civil aviation environment; prepare the GACA for the introduction of new technologies; and assist the GACA in replacing foreign experts with national experts through professional training of qualified Saudi Arabian counterparts. This project, which began July 1997, was extended through June 2011.

Project achievements

Twenty-seven OPAS officers provided assistance in the development of appropriate Standards, procedures and a long-term programme for civil aviation safety services. Consultancy services were provided to GACA and Saudi Arabian counterparts as required. Overall inspections of newly commissioned Saudi Arabian Airlines and Saudi Royal Flights aircraft as well as inspections of air carriers/operators and safety oversight of GACA certified repair stations were conducted. GACA personnel was provided with complementary training courses in the areas of communications, navigation and surveillance/air traffic management (CNS/ATM), as well as radar and non-radar courses and simulator training. Expertise was provided on the establishment and implementation of a Professional Career Enhancement Programme for the future development of fire and rescue service personnel. A major fire fighting vehicle and equipment five-year replacement programme was implemented, with 70 per cent of assets delivered, inspected and commissioned. Technical expertise was provided for an aggressive fast-track upgrade project initiative for domestic aerodromes, the development/opening of Prince Abdulmajeed Bin Abdulaziz Airport, and for the preparation of a strategic aerodrome master planning project.

SINGAPORE

ICAO/Singapore Developing Countries Training Programme

Project goal

The objective of this project, which is funded by the Civil Aviation Authority of Singapore (CAAS), is for ICAO to assist with the administration of a programme to train participants from developing countries, as selected by the Singapore Aviation Academy (SAA). The assistance covers the distribution of related information to ICAO Member States and the issuance of letters of fellowship awards and letters of rejection. The project, which began in 2009, was extended through 2011.

Project achievements

Seventy-four participants from 33 developing countries were selected for participation in 11 courses which were conducted in the disciplines of aircraft accident investigation techniques and management; international air law: concepts and applications; air traffic services (ATS) safety management and investigation; crisis management in aviation security; civil aviation management;

communications, navigation and surveillance/air traffic management (CNS/ATM); automatic dependent surveillance-broadcast (ADS-B) and performance-based navigation (PBN); emergency management; State safety programme; safety oversight inspectors maintenance; safety oversight inspectors engineering and safety oversight inspectors flight operations.

Wildlife Management Programme Review

Project goal

The objective of this project, funded by the Changi Airport Group (CAG), is to assist CAG with carrying out a wildlife hazard assessment, provide CAG with training aimed at establishing an effective wildlife control programme at Changi International Airport and develop a wildlife management and implementation plan. This project began in November 2010 with an expected duration of nine months.

Project achievement

An ICAO expert carried out a wildlife hazard assessment to establish an effective wildlife control programme at Changi International Airport resulting in a wildlife management and implementation plan.

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, in the operation and maintenance of essential facilities, equipment and services for international air transport operations. This includes humanitarian and relief flights and local flight operations within the Mogadishu Flight Information Region (FIR), as far as feasible, 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 air navigation 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, was initially extended through 2006. Due to the continuing instability and non-availability of a functional national government, the project was extended through 2011.

Project achievements

The project continued to provide for the management and administration of the Civil Aviation Caretaker Authority of Somalia (CACAS) in coordination with the United Nations Resident and Humanitarian Coordinator of Somalia and the ICAO Regional Director, Eastern and Southern Africa Regional Office. CACAS continued to provide flight information service (FIS), including aeronautical information service (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 fire fighting and ground marshalling services at Hargeysa, Berbera and Bosasso airports. The project operates AEROCOM station at Garowe Airport and an AIS briefing office at Hargeysa Airport. With respect to human resources development, the project provided a total of four fellowships to Somali Nationals, three for integrated safety management training for two weeks at the Ethiopian Civil Aviation Training Centre and one for a Diploma in aviation management in Singapore. 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. In this regard, assessments were carried out at the new Garowe airfield which is now operational. The project also contributed financially to complete the Garowe airfield runway and for the construction of a security fence for the Hargeysa Airport. The project is currently supervising the extension of Hargeysa runway by 1 800 metres. Work progressed on a plan to extend the North Eastern AFI VSAT network (NAFISAT) system to accommodate a domestic network which will provide extended range very high frequency (VHF), automatic dependent surveillance – broadcast/contract (ADS-B/C) in Somalia as well as implement controller-pilot data link communication (CPDLC) over Somalia airspace.

SRI LANKA

TRAINAIR Programme for the Civil Aviation Training Centre

Project goal

The objective of this project, funded by Airport and Aviation Services of Sri Lanka Ltd., was 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, which began in 2006, was completed.

Project achievements

The ICAO TRAINAIR Central Unit continued to provide assistance and guidance until the completion of this project. Fellowships were provided for CATC staff to attend TRAINAIR events.

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 in the programme administration to train participants from developing countries selected by the training institute. The assistance covers the distribution of related information to ICAO Member States and the issuance of fellowship awards letters and rejection letters. This project, which began in 2009, is ongoing.

Project achievements

One hundred and eighty participants were selected from 37 developing countries for courses conducted in the fields of aviation English language proficiency, interviewer/rater, dangerous goods management, aviation security management, human factors for operational personnel, safety management system and meteorology for aviation personnel.

Revised Master Plans for Suvarnabhumi and Don Mueang International Airports

Project goal

The objective of this project, funded by the Airports of Thailand (AOT) Public Company Limited, is to assist AOT in the overall decision-making process regarding the long-term future role of Don Mueang and the single versus dual airport policy for Bangkok. This project will complement the results of the dual operations study for the Bangkok metropolitan area that was completed in April 2010. This project phase began in April 2010 and was extended through March 2011.

Project achievements

Assisted by an ICAO project coordinator, a tender for a subcontract to prepare a single airport study for Bangkok was issued and the contract was awarded to the successful bidder.

URUGUAY

Strengthening of the Directorate of Civil Aviation and Infrastructure (DINACIA)

Project goal

The objectives of this project, funded by the Government of Uruguay, are to ensure the provision of technical, administrative and professional resources enabling the local aviation authority to meet its safety oversight responsibilities in accordance with ICAO Standards and Latin American Regulations (LARs) as well as to modernize the air traffic services. The project began in August 2009 with an expected duration of four years.

Project achievements

Seven national professionals were contracted to support the implementation of the safety oversight programme. Training of local personnel was achieved in various aviation subjects, such as recurrent simulator training for inspectors, transportation of dangerous goods, aerodrome inspection and aviation security. A public tender was organized for the procurement of radar and very high frequency (VHF) communication systems.

VENEZUELA

Strengthening Human Resources

Project goal

The objective of this project, funded by the Government of Venezuela, was to provide technical assistance to strengthen the Human Resources Management of the National Institute of Civil Aeronautics of Venezuela (INAC), through training, implementation of work methods, and recruitment, in its role as aviation authority and air navigation services provider. The primary focus was on development and implementation of corrective actions in the short to medium terms, as well as standardization and implementation of efficient and effective processes in the long term, in order to meet INAC's requirements in the area of human resources. This project, which began in 2006, was completed in March 2010.

Project achievements

Contract extensions were authorized for international coordinators up to the end of 2010. Safety audit training for INAC was delivered.

Modernization of Airports and Air Traffic Control

Project goal

The objective of this project, funded by the Government of Venezuela, is to assist the National Institute of Civil Aeronautics (INAC) in the modernization of air traffic control and airport services with a view to ensuring the safety and development of civil aviation in Venezuela. This project, which began in 2004, was extended through 2011.

Project achievements

The installation of communications, navigation and surveillance equipment continued.

INTER-COUNTRY AND INTER-REGIONAL LISTINGS

AFRICA REGION

Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA) — Africa Region

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 among the participating States and their administrations (Chad, Cameroon, Cape Verde, Côte d'Ivoire, Democratic Republic of the Congo, Ghana, Kenya, Nigeria and South Africa). The CAPSCA project provides assistance to States to enable them to comply with the relevant ICAO Standards and Recommended Practices (SARPs) and guidelines in Annexes 6, 9, 11, 14 and the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM (Doc 4444)) related to contingency planning with regard to public health emergencies and the prevention of spread of communicable diseases through air travel. The project, which commenced in March 2008, was extended through 2011.

Project achievements

Two focal points were nominated in the Nairobi and Dakar Regional Offices to enhance cooperation among States and regional coordinators in Africa. Additionally, a Regional Coordinator for French-speaking States in Africa was appointed. A workshop was held to provide States with the necessary tools for the development of plans and procedures for dealing with health emergencies that affect the aviation sector. The Global CAPSCA Regional Aviation Medicine Team meeting, the first event of its kind, held in Singapore in October 2010, was attended by the regional focal points and coordinators of CAPSCA-Africa. A CAPSCA website was developed in order to facilitate the sharing of information and documents between the various CAPSCA projects and other partner organizations.

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 Banjul Accord Group (BAG) (Cape Verde, Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra

Leone) and with in-kind and financial support from the African Development Bank, Airbus, the Boeing Company, the French Directorate General of Civil Aviation (DGCA), the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA), the French Cooperation, the International Financial Facility for Aviation Safety (IFFAS) and Transport Canada, were 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; to develop harmonized aviation laws, regulations, certification/surveillance procedures; and to provide assistance to States in the conduct of safety oversight activities, as required, in order to determine the feasibility of establishing COSCAP-BAG as a regional safety organization — BAG Aviation Safety Oversight Organization (BAGASOO). This project, which began in 2005, was completed in 2010.

Project achievements

The Steering Committee established the project's priorities for the remaining six months before completion. Documentation, including Banjul Accord Group Generic Regulations, was finalized. Procedural and guidance manuals were reviewed by the COSCAP-BAG Flight Safety Working Group and approved by the Steering Committee. To ensure a smooth transition to the BAG Aviation Safety Oversight Organization (BAGASOO), an extensive briefing of the activities of the project since its commencement was provided to the newly appointed Executive Director by the COSCAP-BAG Chief Technical Adviser.

Assistance for the establishment of the Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO)

Project goal

The objective of this project, funded by Member States of the Banjul Accord Group (BAG) (Cape Verde, Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone) and with in-kind and financial support from the African Development Bank, the Boeing Company, the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA) and the International Financial Facility for Aviation Safety (IFFAS), is to assist Banjul Accord Group Member States to establish the BAG Aviation Safety Oversight Organization (BAGASOO) whose mission is to enhance the safety and efficiency of air transport in the subregion. BAGASOO, which institutionalized the COSCAP-BAG project that came to an end in July 2010, was established under the auspices of the BAG pursuant to the BAG Agreement signed by the Ministers responsible for civil aviation within the BAG Member States. The project began in July 2010 with an initial duration of one year.

Project achievement

The BAGASOO Executive Director as well as six professional staff and eight general staff were recruited. Necessary administrative infrastructures were established. The BAGASOO Policy and Procedure Manual, Staff Rules, Financial Rules and Training Policy were developed and submitted for the approval of the Board of Directors. Databases are under development on Member States' national inspector training and activities, as well as the status of aviation facilities with a view to facilitating the identification of priority areas for technical assistance.

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

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 and in-kind input from the African Development Bank, Airbus, the Boeing Company, the French Directorate General of Civil Aviation (DGCA), the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA), the French Cooperation, the International Financial Facility for Aviation Safety (IFFAS) and Transport Canada, 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 Member States. This project, which was approved in 2005 but only commenced in 2008 due to political instability and travel restrictions to N'Djamena, which is the designated location for the COSCAP-CEMAC project, has an expected duration of 36 months.

Project achievements

The priorities for the COSCAP-CEMAC project for 2010 were established at the 5th Steering Committee Meeting. The final draft of the CEMAC primary legislation was developed. A draft set of common technical regulations covering ICAO Annexes 1, 6, and 8 were produced. With the assistance of the European Aviation Safety Agency (EASA), a safety assessment of foreign air operators (SAFA) training was delivered to Civil Aviation inspectors from the CEMAC region, including the COSCAP regional inspectors. The establishment of a CEMAC SAFA programme was initiated. COSCAP was involved in, or conducted assistance and/or gap analysis missions in Congo, Equatorial Guinea,

Gabon and Sao Tome and Principe. A Memorandum of Understanding was signed between CEMAC Member States and the ICAO AFI Comprehensive Implementation Plan for the provision of assistance for the establishment of a Regional Safety Oversight Organization.

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 Southern African Development Community (SADC) (Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, United Republic of Tanzania, Zambia and Zimbabwe), with financial and in-kind input from the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA) and the International Financial Facility for Aviation Safety (IFFAS), is to establish 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 to establish a training resource centre in these areas. This project began in April 2008 and has been extended until 2012.

Project achievements

In the area of regulatory harmonization, the COSCAP-SADC Steering Committee approved the SADC Model Aviation Safety Act and SADC Generic Regulations (SGRs) covering ICAO Annexes 1, 6, 7 and 8. States are already either incorporating the provisions of the SGRs into their national regulations or completely replacing their national regulations with the SGRs where appropriate. Numerous generic technical procedures for use by flight operations and airworthiness inspectors were developed. Informal training was delivered to 10 trainees during the year covering subjects ranging from project orientation, regulatory and procedural harmonization, relevant articles of the Chicago Convention and its Annexes, and the SGRs. The process for the selection of one flight operations inspector and one airworthiness inspector to serve with the COSCAP was initiated. As the project is nearing the end of its planned duration, an Institutionalization Working Group (IWG) was established to facilitate, in cooperation with the ICAO AFI Comprehensive Implementation Programme (ACIP), the transition of COSCAP-SADC into the Southern African Safety Oversight Organization (SASOO).

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

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), Mauritania, and with financial and in-kind contributions from the African Development Bank (ADB), The Boeing Company, the European Aviation Safety Agency (EASA), the French Cooperation 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, was extended through 2011.

Project achievements

Project staffing was reinforced to include one flight operations and one aerodrome certification and safety inspector. A set of draft common technical regulations covering ICAO Annexes 1, 6, 7 and 8 was updated and submitted to the UEMOA Commission for their introduction into the adoption process. A State safety programme awareness seminar and safety management system training were delivered for the benefit of civil aviation and air operators' personnel. The project conducted four assistance missions to UEMOA States for the implementation of the UEMOA primary legislation and the UEMOA technical regulations or their corrective actions plans following the ICAO Universal Safety Oversight Audit Programme (USOAP) audit. At the request of the Mali Civil Aviation Authority, the COSCAP inspectors participated in the development of inspectors guidance and procedures manuals in the areas of personnel licensing, flight operations, airworthiness, aerodromes and air navigation services within the framework of the Projet Régional de Sûreté et de Sécurité pour l'Afrique de l'Ouest et du Centre sponsored by the World Bank. Technical seminars, workshops and trainings organized by the ICAO AFI Comprehensive Implementation Plan (ACIP) and the European Aviation Safety Agency (EASA) were attended by the project staff as well as national inspectors. A Memorandum of Understanding was signed between UEMOA Member States and ACIP for the provision of assistance in the establishment of a regional safety oversight organization.

Cooperative Development of Aeronautical Meteorology Services in the WACAF Region — Pilot Project (CODEVMET-WACAF-Pilot Project)

Project goal

The objectives of the CODEVMET pilot project for a continuing programme for Cooperative Development of Aeronautical Meteorology (AeroMet) Services in the WACAF Region, which is funded by the participating States (Cape Verde, Democratic Republic of the Congo, Gambia, Guinea, Guinea-Bissau, Liberia, Nigeria, Sao Tome and Principe and Sierra Leone), are to establish a system aimed at enabling AeroMet service providers in Member States to achieve compliance with international aviation safety standards and to enhance the capability of the States' regulatory authority to carry out safety oversight of AeroMet services through the adoption of a comprehensive system approach. The project began in September 2010 with an expected duration of two years.

Project achievements

A project proposal incorporating the CODEVMET project — Phase I recommendations was prepared for the implementation of the CODEVMET Pilot Project under an institutional framework based upon ICAO's experience in executing similar regional cooperative programmes globally. The project proposal was approved by the participating States at the First Steering Committee Meeting.

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 the Latin American Civil Aviation Commission (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, which began in January 2007, was extended through December 2011.

Project achievements

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

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 the Governments of 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 and modernize the aeronautical fixed-service communications, so as to make it homogeneous, inter-connectable and inter-operable with other digital networks within the Caribbean and South American (CAR/SAM) Region. Since the establishment of the multinational mechanism, the project temporarily manages the REDDIG and implements applications in the CNS/ATM sector in accordance with the requirements of the Regional Air Navigation Plan — Facilities and Services Implementation Document (FASID) for the CAR/SAM Region. This project, which began in 2003, was extended through 2012.

Project achievements

This regional project continued to efficiently manage the REDDIG network and administer the satellite segment providing all Member States with a sound and reliable network that supports the aeronautical telecommunications services within the region with the highest standards of quality. A total of 22 logistics-related operations were carried out, including the shipment of spare parts to replace defective parts, the coordination of repairs and the purchasing of necessary additional spare parts. The Thirteenth Coordination Meeting of the project's Steering Committee revised the project budget in order to extend operations until the end of 2012. The interconnection of REDDIG and Caribbean MEVA II networks continued satisfactorily with the implementation of ATS speech services through Colombia and Venezuela. A technical-operative meeting on communications networks and data transmission was held in Lima, attended by thirty-eight participants, sixteen of which were awarded project fellowships.

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, Costa Rica, Cuba, Guatemala, 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 and the conclusions of the CAR/SAM Regional Planning and Implementation Group (GREPECAS). This project, which began in 2003, was extended through June 2011.

Project achievements

Phase III-A of the project began in January 2010 with an expected duration of 24 months. The following studies were completed: Definition of the monitoring network, Support to the monitoring and control of SACCSA network, Topology of the earth network and Definition of the Website requirements. Studies on Ionospheric Analysis and Generation of Ionospheric Expert Team (IET) scenarios and support progressed. Based on the results of the studies in Phase III-A of this project, the signal-in-space performances obtained were accepted.

Air Traffic Management (ATM) Operational Concept and the Corresponding Technological Support for Communications, Navigation and Surveillance (CNS)

Project goal

The objectives of this project, funded by the Governments of Argentina, Bolivia, Brazil, Chile, Panama, Peru, Paraguay, Uruguay and Venezuela, are 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 continued with the development of action plans aimed at implementing the performance-based navigation (PBN) en-route (RNAV 5), improving terminal areas and approaches, air traffic flow management (ATFM), in communications, navigation and surveillance (CNS) capacity, interconnection of automated air traffic management (ATM) in area control centres, and interconnection of the ATS message handling system (AMHS). A SAM Region strategy was developed for implementing the new flight plan format. An advisory circular and the corresponding working aids for the approval of aircraft and operators expected to perform RNAV and required navigation performance (RNP) operations were approved. Member States analysed the optimization of the ATS routes network of the SAM Region. The second part of the ATFM procedural

manual, Collaborative Decision-Making (CDM) Process Volume I, and a study for a SAM Aeronautical Telecommunication Network (ATN) network were prepared, as well as a guidance document for implementing the interconnection of systems in the AMHS of the SAM Region. A model of a Memorandum of Understanding for implementing automated systems interconnection, AIC supplements for implementing the PBN and ATFM and an amendment of the *Regional Supplementary Procedures* (Doc 7030) in terms of PBN and ATFM were prepared. Activities aimed at improving the provision of meteorological services for international air navigation and aeronautical information services were initiated and the problems confronted by States in the certification of aerodromes were analysed. The project supported the convening of two meetings of the SAM implementation group and sponsored the delivery of twelve training programmes related to the above-mentioned subject matters, with the participation of approximately 320 specialists from 11 Member States.

Regional Safety Oversight System

Project goal

The objective of this project, funded by the Governments of Argentina, Bolivia, Brazil, Chile, Cuba, Paraguay, Peru, Spain, Uruguay, Venezuela, as well as by Airbus, the Central American Corporation for Air Navigation Services (COCESNA) Agency on Aeronautical Safety for Central America (ACSA), Chilean National Airline (LAN Chile), National Aeronautical Enterprise of Chile (ENAER), Maintenance Service of Peru and Venezuelan Airlines (SEMAN), 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, which began in 2003, was extended through 2013.

Project achievements

This project continued to manage the harmonization of the Latin American Aviation Regulations (LARs) and associated procedures, expert meetings, multinational certification and surveillance activities, training programmes and technical support to Member States. Courses on personnel licensing, regulations implementation, approval of aircraft and operators for area navigation and required navigation performance (RNAV/RNP) operations and on the ramp safety inspection data exchange programme were delivered with the participation of approximately 94 attendants. In connection with this last programme, implemented with the assistance of the European Aviation Safety Agency (EASA), information on some 370 ramp inspections was uploaded into the database. Support was provided to one Member State for the training of government safety inspectors. Personnel licensing LARs, airworthiness inspector and operations inspector manuals were updated. The translation of LARs into English and Portuguese continued. A first certification test of a training centre under LAR 142 was successful, and a Member State assigned personnel to attend on-the-job training on safety management systems implementation

conducted by Transport Canada in an approved maintenance organization. The process of adoption or adaptation/harmonization of LARs as national regulations by the Regional Safety Oversight Cooperation System (SRVSOP) Member States continued with different levels of implementation.

Training of Aeronautical Personnel in the CAR/SAM Region

Project goal

The objective of this project, funded by the Government of Spain, is to improve the operational management of air navigation services providers, airport operators and other services providers, through participation in conferences, seminars and fellowship programmes. The project began in 1997 and was extended on an annual basis through 2011.

Project achievements

Three international seminars were delivered on environmental issues, air traffic control automation systems and safety management systems with the participation of 183 officials. In the field of international cooperation, six fellowships, each with a duration of one year, and thirty-five fellowships, each with a duration of two weeks, were awarded to participate in an airport masters programme at the Polytechnic University in Madrid, which covered areas such as airport operations, air navigation services and airport management.

ASIA AND THE PACIFIC REGION

Cooperative Arrangements for the Prevention of Spread of Communicable Disease 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 (Afghanistan, China (Hong Kong SAR and Macao SAR), Indonesia, Malaysia, Nepal, Philippines, Singapore, Solomon Islands, Thailand, Tonga and Viet Nam), as well as by a grant from the United Nations Central Fund for Influenza Action (CFIA) and in-kind contribution from the World Health Organization, 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 airports. This will be achieved initially by the application and implementation of ICAO guidelines, 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, was extended through December 2012.

Project achievements

A Regional Aviation Medicine Team (RAMT) for Asia/Pacific was established, evaluation visits to State airports were conducted, training and establishment of a network of experts was accomplished, and business continuity planning was achieved. Ten airports in seven States were evaluated and arrangements for follow-up evaluations at other airports were in progress. A mission took place to provide input at a World Health Organization–South East Asia Regional Office meeting on strengthening core capacities at points of entry. CAPSCA activities were presented at a Multi-sectoral Pandemic Planning and Response Table Top Exercise of the Association of South East Asian Nations (ASEAN), the United Nations and the United States Agency for International Development (USAID). Training was provided to the Singapore Ministry of Foreign Affairs during a course on emerging infectious diseases. The first global RAMT Meeting was attended by the representatives of the CAPSCA programme from the Africa, the Americas and the Asia and Pacific Regions.

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

Project goal

The objectives of this programme, funded by participating States Afghanistan, Bhutan, Brunei Darussalam, Cambodia, China (Hong Kong SAR and Macao SAR), Fiji, India, Japan, Kiribati, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Philippines, Republic of Korea, Singapore, Sri Lanka, Timor-Leste, Viet Nam, as well as by a grant from the European Commission and the Government of Canada, and in-kind contributions from the Transportation Security Administration, are to ensure compliance with international conventions, ICAO Standards and Recommended Practices, in particular Annex 17 — *Security*, the security related aspects of Annex 9 — *Facilitation*, and guidance material related to aviation security contained in ICAO *Security Manual* (Restricted). As of November 2010, 21 States and Special Administrative Regions joined the programme which is aimed at enhancing the aviation security capabilities of participating States and administrations, creating a regional structure for cooperation and coordination in aviation security matters and training of aviation security personnel. This project, which began in 2004, entered into Phase II and was extended through August 2014.

Project achievements

Fraudulent document recognition training was provided to 103 participants to assist with compliance of the security related aspects of Annex 9. Two national aviation security inspectors courses were held. Nineteen national civil aviation security programmes incorporating ICAO Standards and Recommended Practices (SARPs) and enhanced aviation security measures and procedures relevant to the region were evaluated. Assistance was provided in drafting five

audit-related corrective action plans (CAPs) and two CAPs implementation assessments were conducted. Four aviation security technical documents covering passenger screening procedures, screener certification, quality control guidance and disorderly passenger regulations were distributed. Model aviation security regulations were completed. The national legislation and regulations of 22 States/administrations were reviewed. Draft legal reports on the legislation and regulations of 20 States/administrations were prepared, 12 of which were discussed during on-site visits with the respective State/administration teams at which time discussions on the status of national legislation and recommended amendments were also held.

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

Project goal

The objective of this project, funded by the People's Republic of China, Democratic People's Republic of Korea, Mongolia and the Republic of Korea, and supported by grants from Airbus and The Boeing Company and in-kind contributions from the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA) 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 of safety oversight policies, procedures and regulations. It 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 promotes accident prevention through the establishment and supervision of the North Asia Regional Aviation Safety Team (NARAST). This project, which began in 2003, was extended through 2012.

Project achievements

NARAST met with the regional safety teams of the COSCAP South East Asia (SEA) and COSCAP South Asia (SA) as a combined Asian regional aviation safety team and identified 41 action items to implement safety enhancements and the Global Aviation Safety Plan (GASP). The Steering Committee assigned high priority to the training of national inspectors as well as to actively assisting Member States with their implementation of ICAO Standards and Recommended Practices (SARPs) and in the preparation for Universal Safety Oversight Audit Programme (USOAP) audits. Eighteen training programmes were provided for 263 participants, and 36 missions were carried out to support Member States. Working cooperatively with the other Asian COSCAPs, the Federal Aviation Administration (FAA) and Australia, model operational approval procedures and related training were implemented to support States' implementation of

performance-based navigation. Member States which had successfully completed their USOAP audit assisted other Member States in preparing for their audits.

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

Project goal

The objective of this project, funded by the Governments of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, and supported by grants from Airbus and The Boeing Company and in-kind contributions from the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA) and Transport Canada, is to enhance the safety and efficiency of air transport in the subregion. The main objectives of Phase III include strengthening the regional institutional framework for aviation; 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 Standards and Recommended Practices (SARPs) and efficient oversight capabilities; developing a regional information sharing system to improve access to safety-related information; assisting civil aviation authorities 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 1997, was extended through 2012.

Project achievements

Courses and seminars were held in which participants from all seven Member States were trained. Safety-related documents and manuals continued to be developed, reviewed, updated and/or reissued. Regional experts undertook several missions to each Member State to carry out, as needed, safety oversight tasks, conduct classroom and on-the-job training and assist in the review of safety oversight-related requirements. The official COSCAP-SA website continued to be updated. Accident prevention was promoted by the South Asia Regional Aviation Safety Team (SARAST). A meeting of the heads of aviation training centres was held within the framework of the programme to promote the ICAO TRAINAIR methodology and exchange knowledge about training in the aviation sector. Regional experts took part in the preparation and conduct of the Regional Aviation Safety Team (RAST) meeting.

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

Project goal

The objectives of this project, funded by 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 supported by grants from Airbus and The Boeing Company and in-kind contributions from the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA) and Transport Canada, 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, was extended through July 2011.

Project achievements

Bulletins and Advisory Circulars were issued and workshops and training were provided. The South East Asia Regional Aviation Safety Team (SEARAST) met with the safety teams of the COSCAP North Asia and COSCAP South Asia as the combined Asian Regional Aviation Safety Team, and identified 41 action items to implement safety enhancements and the Global Aviation Safety Plan (GASP). The Steering Committee assigned high priority to the training of national inspectors. Where numbers warranted, training programmes were provided on site to States but often training was provided at one or two central locations. Member States which had successfully completed their USOAP audit, assisted other Member States in preparing or their audits, and other technical support was exchanged between Asian COSCAPs.

Asia-Pacific Flight Procedure Programme (FPP)

Project goal

This programme is a regional cooperative agreement funded by the active participating States/administrations of Australia, China (Hong Kong SAR and Macao SAR), Democratic People's Republic of Korea, France, Mongolia, Republic of Korea, Singapore, Thailand and Viet Nam. In addition, the States of Bangladesh, Cambodia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, and Timor-Leste participate in the programme but do not make annual contributions. The FPP is executed by means of an ICAO Trust Fund project provided by the participating States, with in-kind and funding support from the

United States Federal Aviation Administration (FAA), Civil Aviation Administration of China, French Directorate Générale de l'Aviation Civile (DGAC), Hong Kong Civil Aviation Department (CAD), Airports Authority of India, Airbus, The Boeing Company, and the Environmental Systems Research Institute (ESRI). The programme objective is to assist States to develop sustainable capability in the instrument flight procedure domain so as to meet their commitments under Assembly Resolution A36-23 for performance-based navigation (PBN) implementation and their obligations for the quality of their instrument flight procedures (IFPs). This programme began in January 2010 and is ongoing.

Programme achievements

The programme's procedure design capabilities were developed. Training courses were developed and provided to procedure designers. These courses included a *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS (Doc 8168)) procedure design initial course which was attended by 24 participants from 10 States; one PBN procedure design course was attended by 15 students from eight States; and a workshop on continuous descent operations for the FPP staff and 16 attendees from China. On-the-job training on procedure design was provided for two procedure designers at the FPP office in Beijing. A manual containing institutional framework and administrative procedures was developed and adopted by the Steering Committee.

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 and the United Arab Emirates with the support of Airbus, The Boeing Company, the European Aviation Safety Agency (EASA), the United States Federal Aviation Administration (FAA), Etihad Airways of the United Arab Emirates, 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 the participating States. It is also aimed at creating a regional structure for cooperation and coordination in aviation security matters, as well as in training aviation security personnel. This project began in 2006 with an expected duration of five years.

Project achievements

The project's priority continued to be the development of draft harmonized aviation regulations, based on the European model, where appropriate. A flight operations expert was recruited. A web-based regulatory harmonization platform was introduced. The secure harmonization site provides for timely review by the Regulation Committee of new or amended regulations and the tracking, comparing and archiving of regional- and State-harmonized regulation documents. A State Safety Programme Implementation Seminar was provided to 150 participants. Fully sponsored training in performance-based navigation operational approval and required navigation performance — authorization required operational approval for inspectors from Member and neighbouring States was arranged. The Gulf States Rule-making Manual was updated. Reviews of Part FCL (Flight Crew Licensing) and amendments to Part M (Continuing Airworthiness) are in progress. The project continued its supporting role of the Middle East Aviation Safety Roadmap, including the coordination of a working group for the implementation of commercial aviation safety team risk mitigation strategies in the Gulf subregion.

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, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), implemented within the framework of the fund established by the CIS, Airbus, The Boeing Company, United States Federal Aviation Administration (FAA), the Ilyushin Aviation Complex and the Interstate Aviation Committee (IAC). The objectives are to enhance the safety oversight capabilities of the participating States by establishing a regional flight safety training/advisory center at the Interstate Aviation Committee; providing assistance in overcoming deficiencies; providing training to national inspectors; and harmonizing national aeronautical legislation as may be required. The project, which began in 2001, was extended through 2011.

Project achievements

Seminars were held on the subjects of airline training programme approval and crew resource management, analysis of the United States Commercial Aviation Safety Team (CAST) and the European Commercial Aviation Safety Team (ECAST) model, required navigation performance and safety management systems in flight operations, with the support of experts from Airbus, the Boeing Company and the FAA and were attended by 252 nationals from the CIS. The

2nd Global Aviation Safety Road-map (GASR) Workshop, carried out with the participation of ICAO experts in addition to experts from Airbus, The Boeing Company, the European Aviation Safety Agency (EASA), FAA, the Flight Safety Foundation, IAC and the International Air Transport Association (IATA), resulted in practical proposals to improve flight safety in the region.