

ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

THE FUTURE OF SAFETY

ICAO's proactive and collaborative approach

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How many maintenance personnel will we need in 2030?
NTSB Chairman speaks out
ICAO calendar of key events 2012/2013





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4 Japan

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11 Kenya

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ICAO Communications Unit
Tel: +01 (514) 954-8220
www.icao.int
www.youtube.com/icaovideo
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Bang Marketing
Stéphanie Kennan
Tel: +01 (514) 849-2264
E-mail: info@bang-marketing.com
Website: www.bang-marketing.com

Advertising
FCM Communications Inc.
Yves Allard
Tel: +01 (450) 677-3535
Fax: +01 (450) 677-4445
E-mail: info@fcmcommunications.ca

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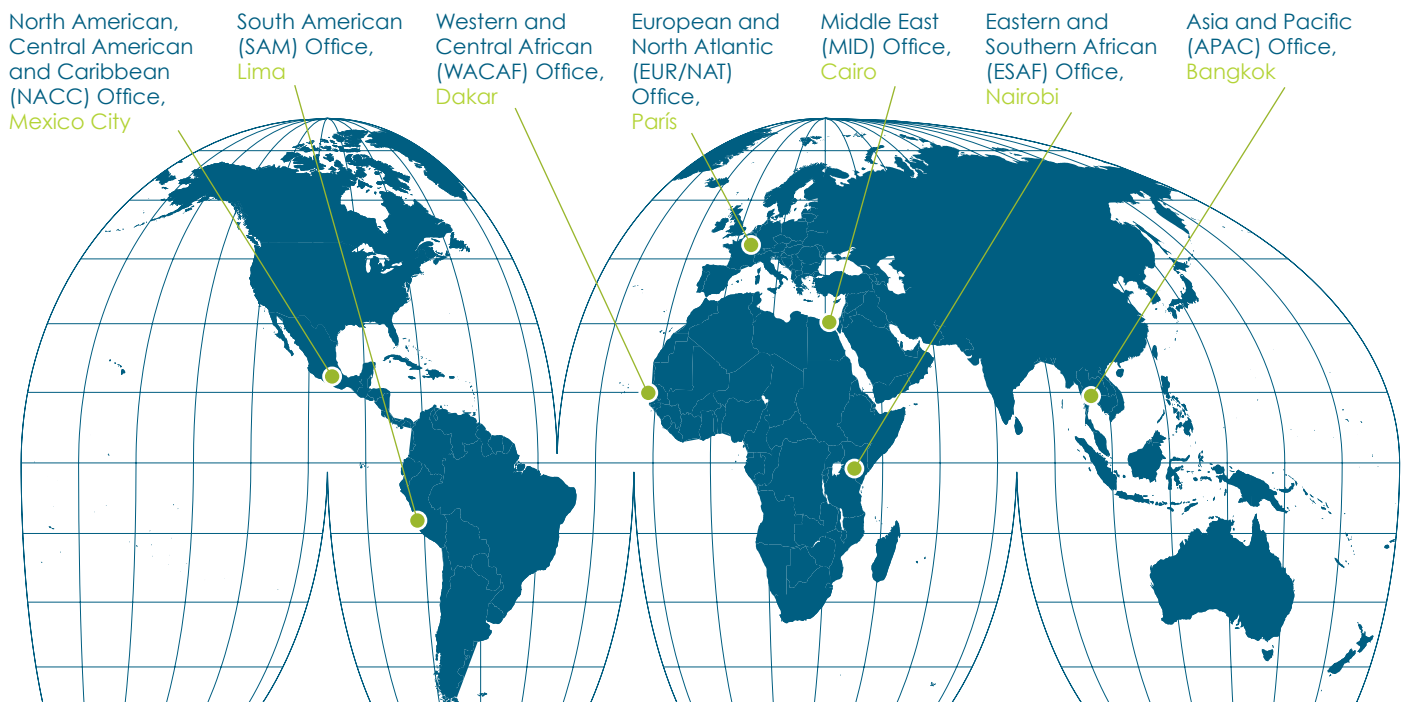
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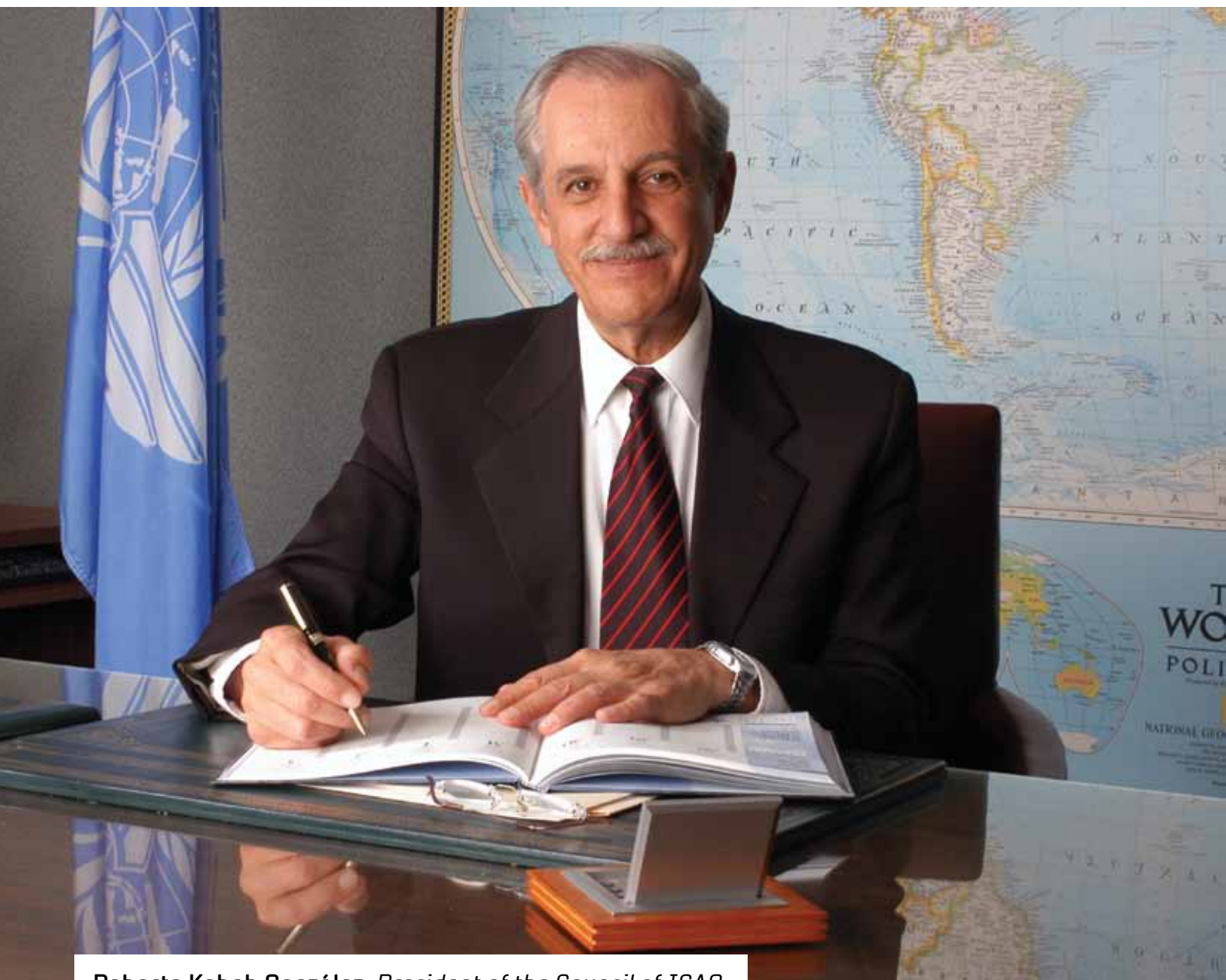
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ICAO's Global Presence




Leadership and Vision in Global Civil Aviation





Roberto Kobeh González, *President of the Council of ICAO*

FUTURE OF SAFETY DEPENDS UPON OUR EFFORTS TODAY

 When we look at the future of aviation, we must necessarily look at the future of safety.

Today, we can be encouraged by the fact that the global air transport system is already remarkably efficient. In fact 2011 was the safest year on record.

But, by 2030, we expect the number of passengers to reach 6 billion a year and the number of aircraft departures to reach more than 50 million - roughly double what we experienced in 2011. Such growth will progressively exert mounting pressure on all aviation systems, many of which are operating at maximum capacity.

So the key question for all of us in the global aviation community is: what changes must we bring about to consolidate our progress to date and make aviation even safer?

ICAO is responding to that question by focusing efforts on areas with the greatest return on investment of resources.

Our first target is runway issues, the number one cause of fatal accidents. In cooperation with our aviation partners, we have established a Global Runway Safety Program. Our goal is to raise awareness and bring the industry's collective expertise, knowledge and best practices to bear on the range of runway safety-related events.

Our number two priority is loss of control in-flight. Fewer accidents are caused in this way but they are almost always catastrophic. Again this year we will be partnering with key regulators to further explore this issue.

Fatigue is another insidious cause of fatal accidents. Last year we introduced, and are now promoting, new Fatigue-risk Management standards and guidance material for regulators and industry.

ICAO Standards and Recommended Practices (SARPs) are the essential building blocks of the sound regulatory aviation system. Their implementation is essential. And yet, safety oversight audits in our Member States over the past decade reveal that more than 50 States have less than the 50 per cent level implementation.

Accordingly we developed various analysis methodologies to demonstrate how countries run the risk of a major aviation accident if they do not correct the situation. We want to compel decision-makers to take action on safety risks before accidents occur.

At the same time we created a Safety Collaborative Assistance Network to match States that demonstrate the political will to act with States ready to assist through consulting and training. And we established

"...the key question for all of us in the global aviation community is: what changes must we bring about to consolidate our progress to date and make aviation even safer?"

a new voluntary safety fund for States that would rather donate funds instead.

In support of this approach we have been working with the International Air Transport Association (IATA), Airports Council International (ACI) and the Civil Air Navigation Services Organisation (CANSO) on an overarching aviation mechanism of Systems Assessments involving airlines, airports and air navigation service providers. All three organizations have agreed to the sharing of relevant information through the ICAO Global Safety Information Exchange. This collaboration creates a broader pool of information to assess the overall health of the aviation system.

These initiatives and many more are included in the first ever ICAO 2011 State of Global Aviation Safety report. This report is available to all readers and the traveling public on the ICAO website. It offers a sharp overview of aviation safety around the world and an outline of everything we do to make air travel safer not just for today – but for the future. ■



GLOBAL SAFETY BENCHMARK

Inaugural ICAO report emphasizes proactive, risk-based and collaborative approaches



pilot fatigue and an anticipated shortage of qualified aviation professionals.

“This inaugural 2011 State of Global Aviation Safety Report is intended to provide Member States, the aviation community and the travelling public with a high-level analysis of air transport safety trends and indicators,” said Nancy Graham, Director, ICAO Air Navigation Bureau.

The report also describes international success stories and highlights the Organization’s important leadership role in fostering increased cooperation and innovation to enhance air transport safety worldwide.

“While safety information is readily available from a number of sources, this innovative report presents a compelling and holistic plan for ICAO and the industry to consistently improve aviation safety,” added Graham. She also stressed the importance of the report as a benchmark for global progress.

COOPERATION IS KEY

“The *State of Global Aviation Safety* provides information that can serve as a basis for sound decisions on how to best continue improving aviation safety outcomes,” she said. “By providing this information in a clear and easy-to-understand format, ICAO has sought to promote improved accountability while ensuring consistency with its strategic objectives.”

The report is particularly timely in light of developments in the international industry.

2010 saw a return to growth as the total volume of scheduled commercial flights began to edge over 30 million per year. In the context of this growth, and in light of anticipated increases in air travel, Graham says it is imperative to maintain a strong focus on initiatives that will further improve safety outcomes in the future. With this in mind, ICAO is continuously developing and refining more proactive and risk-based methods to further reduce the global accident rate and address the three highest priority areas of safety risk today, namely: runway-related accidents; controlled flight into terrain (CFIT); loss of control in-flight and accidents due to system component failures.

The number of accidents attributed to scheduled commercial flights increased to 121 in 2010, compared to 113 in 2009. This resulted in an accident rate of 4.0 per million departures, a marginal increase compared to the accident rate of 3.9 per million departures in 2009.

While the overall number of fatalities in 2010 was below those in 2005 and 2006, there has been an increase in fatalities over the past three years. This trend serves as a reminder that cooperation among the various stakeholders is a key factor in reducing the number of aviation accidents and related fatalities.

✈ It’s entitled the *State of Global Aviation Safety - 2011 Special Edition*, the first document of its kind in ICAO history. The new and definitive report on the status of safety within the international air transport system serves as a benchmark for future efforts and an open, transparent overview for the travelling public.

The annual ICAO safety report combines comprehensive traffic statistics and accident trends as well as the full range of initiatives undertaken by the Organization, its Member States and partners to address safety issues. These include runway-related events (the number one cause of fatal accidents),

ICAO and partnering stakeholders have been developing and implementing pragmatic, risk-based approaches to address emerging global safety issues

ROLE OF RASGs

The ICAO Universal Safety Oversight Audit Programme (USOAP) continues to promote the systematic implementation of ICAO Standards and Recommended Practices (SARPs).

To keep pace with expansion and progress sector-wide, ICAO remains focused on the implementation and development of new safety initiatives. The Safety Collaborative Assistance Networks (SCAN), the Runway Safety Programme and Fatigue Risk Management Systems are only a few examples of how ICAO is working with stakeholders to identify and eliminate hazards.

ICAO is also continuing to enhance the efficiency and effectiveness of established regional safety organizations, using its new Regional Aviation Safety Groups (RASGs) to provide higher-level, regional coordination and reporting. The development and promotion of improved training and support tools necessary to address current and emerging safety issues plays an important role in these regional programmes.

Over the past decade, the aviation community has witnessed a fundamental shift in its approach to safety. ICAO and partnering stakeholders have been developing and implementing pragmatic, risk-based approaches to address emerging global safety issues and to better focus the Organization's support to States with more pronounced safety challenges.

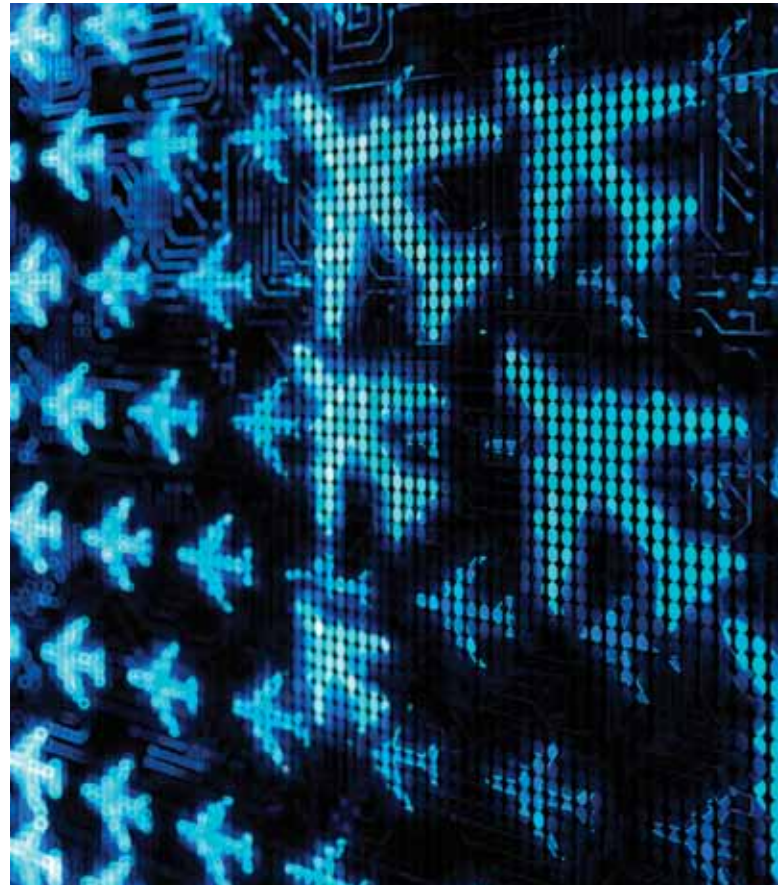
CONTINUED COLLABORATION

"The evolution of these strategies is critical to ensure that international civil aviation remains the safest mode of transportation, even as it continues to accommodate the significant growth in global populations and air travel forecast for the near future," said Graham.


The information included in the report strongly supports the conclusion that safety performance in international civil aviation can and must be enhanced - not just for the sake of the aviation sector but in order to intrinsically support global and local economies.

"ICAO's vision is focused on this goal and we invite States and the aviation community to continue to collaborate with us in this effort," said Graham. "Safety remains aviation's fundamental and guiding strategic objective and our sector surely stands to benefit from this new and integral safety publication."

Future ICAO Safety Reports will be published annually, providing ongoing updates to the air transport community on key safety indicators. These annual reports will be supplemented when necessary by Special Editions (such as this inaugural report), in order to commemorate the achievement of more significant safety milestones. ■



ICAO PROGRAMMES IN ACTION

 The policies, procedures and systems that ensure civil aviation remains safe, secure, efficient and environmentally sustainable are prescribed within ICAO's coordinated international Standards and Recommended Practices (SARPs).

All these activities are harmonized by the principles and objectives outlined in the Organization's Global Aviation Safety Plan (GASP) and many State-specific safety SARPs are being collated into a new Safety Management Annex which is currently under development. ICAO also initiates and manages projects addressing a wide range of safety issues, many of which have been detailed within the Implementation Section of the *State of Global Aviation Safety report*, including:

THE ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)

ICAO's safety monitoring activities are focused on the Universal Safety Oversight Audit Programme (USOAP) and the ongoing transition to a continuous monitoring approach. As of the end of 2010, the USOAP had completed assessments of 93 per cent of ICAO Member States, accounting for 99 per cent of the traffic flow.

COOPERATIVE DEVELOPMENT OF OPERATIONAL SAFETY AND CONTINUING AIRWORTHINESS PROGRAMMES (COSCAPs)

COSCAPs were created to enhance safety of air transport on a regional basis through the establishment of cooperative entities that provide technical services to COSCAP participants.

Each COSCAP is directed by a Programme Steering Committee composed of Directors General of Civil Aviation (DGCA), ICAO representatives, technical advisers, representatives from the donor partners and other stakeholders.

COSCAPs provide a focal point for queries, facilitate the sharing of technical expertise and enhance the safety oversight capacity of civil aviation authorities. Through COSCAPs, technical personnel are able to perform such tasks as providing training courses, developing harmonized regulations, creating technical guidance materials, performing certification and surveillance activities and assisting States



in developing corrective action plans to address safety deficiencies. Nine cooperative programmes currently function under the COSCAP model and these will now begin to report to ICAO annually, along with other ICAO and non-ICAO regional safety bodies, through the Regional Aviation Safety Groups the Organization is establishing globally.

RUNWAY SAFETY PROGRAMME

Aviation has achieved a remarkable safety record, with fewer than four accidents per million departures worldwide. Nonetheless, the global accident rate has remained essentially constant over the past 10 years, with runway-related event categories consistently representing the largest accident grouping.

Improvements in runway safety are therefore essential to the objective of continually reducing the global accident rate, as well as related fatalities, despite projected growth in air traffic for the foreseeable future. As a result, the international aviation community has called upon ICAO to demonstrate leadership in the effort to reduce the number of runway-related accidents and incidents. Through its Runway Safety Programme, ICAO aims to coordinate a global effort to improve runway safety.

These three programmes represent just a few examples of how ICAO is working with stakeholders to identify and eliminate hazards, improve aviation safety and enable seamless cooperation and communication among stakeholders. The coordination and harmonization of multiple safety programmes must work in a synchronized manner to continually improve safety in today's complex air transportation system. ■

Is your airline in compliance?

If you don't have the **ICAO Red Book** on your aircraft,
your airline may not be in compliance

The operator must ensure that for consignments for which a dangerous goods transport document is required by these instructions, appropriate information is immediately available at all times for use in emergency response to accidents and incidents involving dangerous goods in air transport.

The information must be available to the pilot-in-command and can be provided by:

- a) the ICAO document Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (ICAO Doc 9481)

(source: ICAO Technical Instructions)



"Safety and Security are the top priorities for the industry. Understanding and complying with dangerous goods procedures is an important part of that matrix. That is why IFALPA recommends that all airlines have a copy of "The Red Book" in every cockpit of each and every one of their aircraft."


Captain Don Wykoff, IFALPA President



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SAFETY ASSISTANCE SUCCESS STORIES

 The cooperative spirit of ICAO's Member States and air transport partners has been consistently demonstrated through financial and technical assistance projects which have succeeded in raising the level of global civil aviation safety.

The following examples (taken from the pages of the *State of Global Aviation Safety report*) represent a small sample of the many assistance success stories that are resulting in positive aviation safety outcomes.

INDIA

The Airport Authority of India and ICAO conducted training programmes in the areas of airport management and airport security for personnel from other Member States, including Mauritius, Nigeria, Philippines, South Africa, Tajikistan, Thailand and Uganda. In conjunction with these programmes, ICAO awarded fellowships to personnel from Bangladesh, Mauritius, Nigeria, Saint Lucia and Zimbabwe.

AUSTRALIA

Four Australian governmental agencies are involved in programmes of cooperation and assistance with States in the Asia/Pacific region, in particular, with Indonesia and Papua New Guinea. These agencies are the Department of Infrastructure and Transport, the Civil Aviation Safety Authority, the Australian Transport Safety Bureau and Airservices Australia. The cooperation and assistance programmes enhance regional aviation safety through training, mentoring and capability building activities.

EUROPEAN UNION

A number of international technical assistance projects have been financed and conducted by the EU. Civil aviation cooperation programmes have been arranged with neighbouring countries and with States in Africa, Asia and Latin America. EU technical assistance primarily targets States and regional organizations that lack resources and/or technical expertise, with the aim of improving the level of safety.

WORLD BANK GROUP

The WBG is a source for financial and technical assistance to developing countries through low interest loans, grants and interest-free credits. In 2010, the WBG assisted and supported select countries with over 30 projects in the air transport sector and 28 investment agreements, with a total volume in the air transport portfolio of US\$1.25 billion. A major focus continues to be Africa, where several air transport safety and security projects were developed and implemented. These projects financed regulatory reform, capacity building and infrastructure.

AIRBUS

Airbus considers Performance-based Navigation (PBN) as one of the best solutions to safety concerns such as runway excursions and controlled flight into terrain, and has viewed PBN as a method to optimize airport access in a safe and efficient manner.

BOEING

Boeing provided technical experts and contractors at the requests of the civil aviation authorities of Argentina and the United Arab Emirates to assist in preparing for a scheduled U.S. FAA International Aviation Safety Assessment (IASA). The support provided by Boeing contributed to the overall success of these assessments resulting in both States receiving an IASA Category 1 rating, which is defined as meeting ICAO Standards.

ICAO's TECHNICAL CO-OPERATION BUREAU

The ICAO TCB has provided technical assistance and administered service agreements with States with the goal of improving aviation safety. As examples, TCB has been working with Panama to modernize Tocumen International Airport, with the US\$100 million project, resulting in the airport serving as one of the most important hubs in Latin America. ■

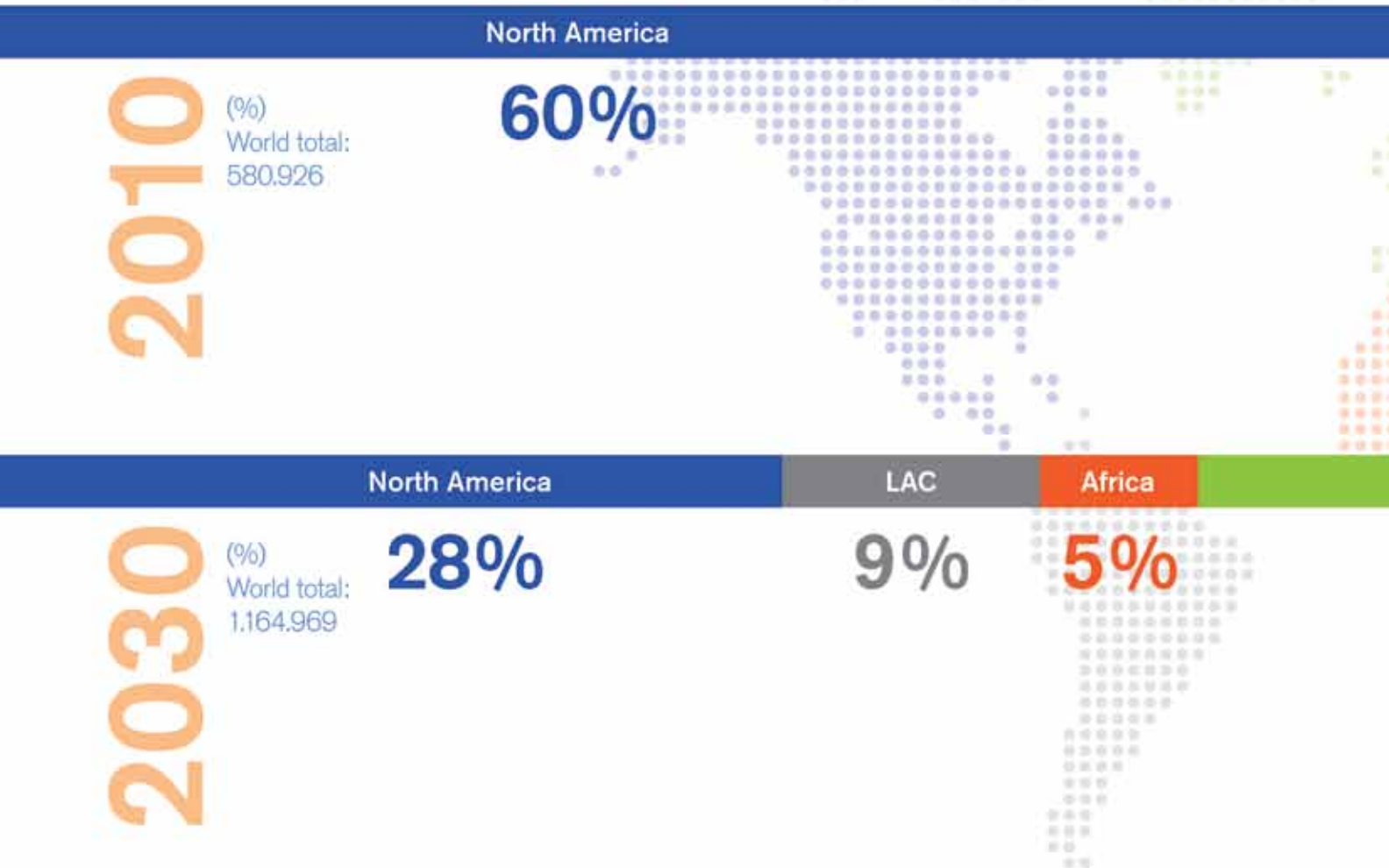


WHO WILL MAINTAIN YOUR AIRCRAFT IN 2030?

ICAO's *Global and Regional 20-year Forecasts*, serves as an essential safety-related planning tool as the Organization continues to coordinate global aviation training in response to projected fleet growth and skilled personnel attrition rates across several career categories.

For more information about *Global and Regional 20-Year Forecasts: Pilots. Maintenance Personnel. Air Traffic Controllers.*(Doc 9956), please visit www.icao.int/publications.

Geographical distribution of maintenance personnel



The 2010 maintenance personnel population

The aircraft maintenance personnel population considered includes personnel employed by commercial air transport operators, maintenance, repair and overhaul (MRO) organizations and training organizations.

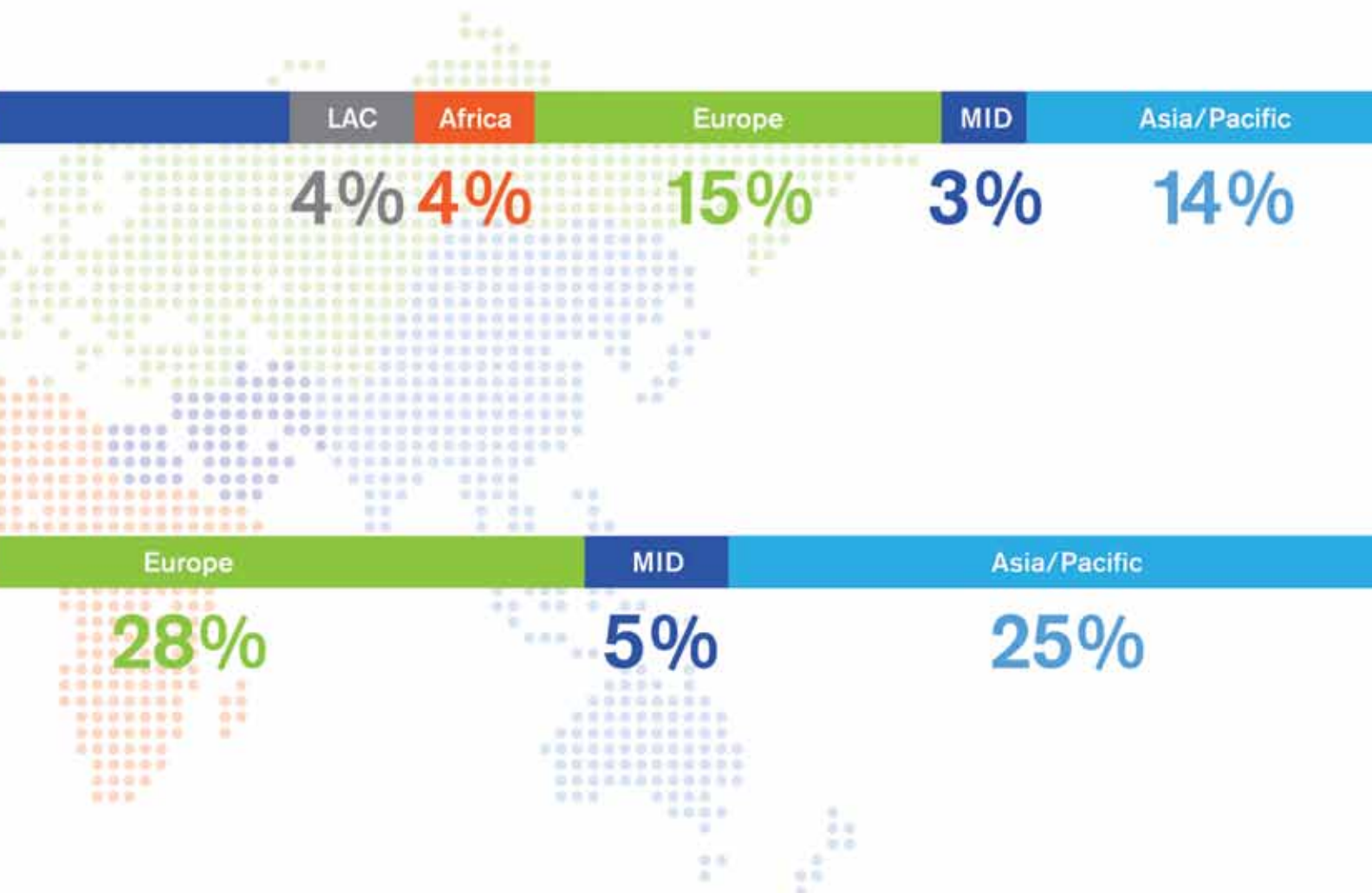
Surveys of industry standards show that, for the passenger and cargo aircraft groups, an average of 20 maintenance personnel are required per aircraft. Among the estimated 20 persons per aircraft, approximately one fourth (i.e. five persons) are licensed maintenance personnel, the rest are unlicensed personnel. For the other aircraft group, an average of three maintenance personnel are required per aircraft, which includes two licensed personnel and one unlicensed personnel.

These figures should not be considered as absolute and fixed values. The actual number and qualification levels of personnel allocated for maintenance operations varies considerably depending on a number of factors including the nature of the organization employing them (air transport operator or MRO), the category or type of aircraft and even the time frame

allocated for completing the assigned tasks. It should be noted that MRO personnel may not be licensed but must meet the same requirements as licensed personnel before having certifying privileges.

The graphs below illustrate the geographical distribution of maintenance personnel in 2010. The estimated total number of personnel in 2010 is 580 926. North America has the largest (60 per cent) reservoir of maintenance personnel, while Europe (15 per cent) and Asia/Pacific (14 per cent) follow in second and third positions.

It is interesting to compare this distribution with geographical distribution of aircraft. In most regions have less or equal percentage of maintenance personnel than aircraft distribution, except North America. This could be related to the ease of obtaining an aircraft maintenance license in the United States, even though operators or MRO train their personnel to the required level.



U.S. NTSB CHAIRMAN STRESSES DATA AND COOPERATION AS KEYS TO THE FUTURE OF ACCIDENT INVESTIGATION



DEBORAH A.P. HERSMAN
Chairman,
National Transportation
Safety Board

✈️ Accident investigation must adapt in order to play an even more pivotal role in creating civil aviation's safer and stronger future says U.S. National Transportation Safety Board Chairman, Deborah Hersman.

Hersman's comments were part of the 8th Annual Assad Kotaite Lecture entitled, 'Assuring Safety in Aviation's Second Century' which was held at ICAO Headquarters in Montréal. Hosted by the Montréal Branch of the Royal Aeronautical Society, the annual lecture is a tribute to Dr. Assad Kotaite, past President of the Council of ICAO and President, Emeritus, since his retirement.

"While traditional tin-kicking will never go away, it is increasingly being joined by sophisticated data analysis," said Hersman. "In this era of dynamic growth and greater complexity, data is more important than ever. Today, there is greater safety. Yet, at the same time, there are greater challenges in investigating accidents and assuring safety. This is because while modern technology has made aircraft more efficient, they are also far more complex."

Citing examples from recent accident investigations, Hersman said it's clear that future accident investigations will depend far more on data and cooperation than in the past.

"Data and cooperation is how the aviation community will maintain - and enhance - its strong safety record into the second century of powered flight," Hersman said.

ACKNOWLEDGING ANNEX 13

Hersman described how today's accident investigators not only have access to myriad data sources, but are able to retrieve information from non-volatile memory sources which can be recovered from electronic components, including digital engine controls, flight control and maintenance computers and much more.

"Even when these devices are severely damaged, we've had successes with chip-level data extraction," said Hersman. "There's also data transmitted from onboard reporting systems, such as ACARS, which can provide investigators with critical real-time information. And, we're seeing an immense amount of video data from surveillance cameras and personal cameras, as well as information from GPS devices and electronic flight bags."

Over the last seven years, Hersman said there has been a 200 per cent increase in the number of recording devices that come into the NTSB lab.

“Data and cooperation is how the aviation community will maintain – and enhance – its strong safety record...”

“This is why the accident investigation framework provided by Annex 13 is so crucial,” she said.

Annex 13 provides the foundation - the protocols, the rights and responsibilities - for the States to work together. Hersman said one of the key accident investigation challenges arises when the accident investigation protocols defined in Annex 13 “collide with the local political and judicial systems.”

“This is where data and cooperation is so essential,” she said. “The data - most often on the recorder - is needed first since, for safety investigations, it lays the foundation for all the activities to follow.”

CALL FOR COOPERATION

Hersman also praised initiatives designed to help those whose lives are affected by aircraft accidents and the States which have instituted family assistance programmes including the European Union which passed family assistance legislation for its Member States.

“We applaud ICAO for its family assistance leadership,” said Hersman. “At the NTSB, we were honored, at ICAO’s request, to participate in a task force to revise ICAO Circular 285, first published ten years ago.”

“We are hopeful the Council and Assembly will embrace this issue. Because, in the aftermath of an accident, we have seen what happens, we’ve learned about what needs to be done and now we need to adapt.”

In the context of the dynamic growth in worldwide air travel - projected to reach some 3.6 billion passengers by 2014 – Hersman emphasized the need for international cooperation.

“It’s clear that accident investigation will depend far more on data and cooperation than in the past,” she said. “In aviation’s second century, accident investigators need all the data available to put together the big picture of what happened.”

Hersman said she applauded the agreement reached at the 37th ICAO Assembly to foster data sharing through the creation of the Global Safety Information Exchange.

CONSTANT COMMITMENT

“This information can be vital to investigators as they seek to learn what really happened and determine what can be done to improve safety,” said Hersman. “The recent General Assembly initiated this dialogue about data sources. This is essential in setting standards of protection for the use of data in accident investigations.”

Hersman said the NTSB looks forward to continuing the conversation on cooperation when it hosts an international conference to share experiences, address the challenges with conducting Annex 13 investigations and identify best practices.

“No matter how proud we are of the record of safety, we have achieved, we cannot - we must not - be complacent,” added Hersman. “We must make a constant commitment to further improve aviation safety - by observing, learning, and adapting. And by using the data and increased international cooperation through ICAO.” ■

ABOUT THE GLOBAL SAFETY INFORMATION EXCHANGE (GSIE)

ICAO, the United States Department of Transportation, the European Union and the International Air Transport Association (IATA) created a Global Safety Information Exchange (GSIE) to help reduce the risk of accidents and improve the overall level of aviation safety worldwide.

The GSIE framework is designed to identify the information that will be exchanged and establish procedures for sharing the information multilaterally. This will be done in the most efficient and secure manner possible, taking into consideration existing confidentiality legislation and agreements.

ICAO’s role is to act as the focal point for coordinating the collection, analysis and exchange of aviation safety information among the members of the GSIE and for disseminating pertinent information to the global aviation community. In addition, criteria will be established to allow additional parties to join the GSIE.

The announcement to create a GSIE was made on the opening day of the Organization’s triennial Assembly in September 2010.

2012-2013 CALENDAR

KEY ICAO EVENTS

2012

.....

Second Symposium on the Next Generation of Aviation Professionals (NGAP/2)

11 – 13 April 2012

ICAO Headquarters, Montréal

Will build on the work started at the first NGAP symposium which was held in March 2010. The objectives are: to raise the profile of human resource planning with Member States; to provide a platform for an international aviation training organization; to foster alternative means of financing pilot training; to progress means to retain the next generation in aviation professions; to market TRAINAIR PLUS, the aviation training directory, Doc 9956 endorsement as well as other ICAO training products; and to establish the NGAP programme for the next triennium.

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ICAO Air Transport Symposium - in partnership with the Air Transport Research Society (ATRS)

18 – 20 April 2012

ICAO Headquarters, Montréal

Will address key issues in the air transport economics, policy and management fields identified by ICAO and ATRS including: the current state of the air transport industry; long-term outlook; air transport regulatory issues: liberalization; market access; air carrier ownership/control, strategies and the way forward.

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High-level Conference on Aviation Security

12 – 14 September 2012

ICAO Headquarters, Montréal

Will address key issues in aviation security, including: inter alia: mitigating the insider threat; cargo security; sustainability of aviation security; evolution of aviation security audits; capacity-building and technical assistance; technology and innovation; and action to be taken with respect to States with significant aviation security concerns.

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Eighth Machine Readable Travel Documents (MRTD) Symposium

10 – 12 October 2012

ICAO Headquarters, Montréal

Will identify and promote implementation of MRTD best practices and lessons learned, strengthen partnership between State authorities and industry, and enable sharing of information on new technology.

Performance-based Navigation (PBN) Symposium

16 - 19 October 2012

ICAO Headquarters, Montréal

Will bring together key partners from the aviation industry including, international organizations, aircraft manufacturers, air navigation service providers, airlines, regulators, ATC system manufacturers, avionics designers, air traffic controllers, pilots, the military, aeronautical information companies and instrument procedure designers to share the latest developments relating to performance-based navigation applications.

Twelfth Air Navigation Conference (AN-Conf/12)

19 - 30 November 2012

ICAO Headquarters, Montréal

Will foster collaborative work toward the establishment of a truly global strategy for air navigation and implementation. The objectives are to update the Global Air Navigation Plan (GANP); to set priorities and coalesce around major operational objectives to bring the global aviation community into agreement on an agenda for the next fifteen years for air navigation planning and implementation; to organize and rationalize panel work programmes toward finalization of operational objectives; to provide a stimulus to air navigation implementation; and to provide States with the legal framework for funding and developing work programmes and more.

2013

38th Session of the ICAO Assembly

2013 - ICAO Headquarters, Montréal

Will establish the worldwide policy of the Organization for the next three years.

Sixth Worldwide Air Transport Conference (ATConf/6)

18 - 23 March 2013

ICAO Headquarters, Montréal

Will examine key issues in air transport regulation and liberalization, and proposals on related policy guidance or regulatory arrangements with a view to developing conclusions and recommendations.

Fatigue Risk Management Systems (FRMS) Symposium

2013 - ICAO Headquarters, Montréal

Will build on the work of the first FRMS Symposium, held in August 2011, which looked at the benefits and challenges of FRMS and which offered an overview of current best practices. The objective is to further examine both prescriptive and non-prescriptive fatigue management regulations and implementation of FRMS.

Symposium on important aviation safety and/or sustainability issues

2013 - ICAO Headquarters, Montréal

Environmental Symposium

2013 - ICAO Headquarters, Montréal

Will be dedicated to aviation environmental issues and will provide a forum to discuss, inter alia, developments emanating from the Ninth Meeting of the Committee on Aviation Environmental Protection (CAEP/9).

Ninth Machine Readable Travel Documents (MRTD) Symposium

Fourth quarter 2013


ICAO Headquarters, Montréal

Will identify and promote implementation of MRTD best practices and lessons learned, strengthen partnership between State authorities and industry, and enable sharing of information on new technology.

Note: this calendar highlights a selection of ICAO events. Event information is subject to change. Please consult the ICAO website for complete, up-to-date information.



THE WORLD ROUTE DEVELOPMENT STRATEGY SUMMIT IN SEVEN CHAPTERS

 The International Civil Aviation Organization (ICAO) partnered with the World Bank and, for the first time, UBM Aviation, to organize an aviation strategy meeting: the “World Route Development Strategy Summit” – a global, aviation leader’s summit.

The summit took place in October 2011 in Berlin and tackled a variety of key topics from taxes and the European Union’s Emissions Trading System (EU ETS) to delayed aircraft deliveries and many other hot-button issues. Narjess Teyssier, Chief,

Economic Analysis and Policy Section, ICAO, reports on seven of the key messages voiced at the summit by aviation industry stakeholders.

1. THE DIVIDING LINES BETWEEN LEGACY CARRIERS AND LOW-COST CARRIERS HAVE BEEN SIGNIFICANTLY BLURRED

Code-sharing, frills and the use of primary airports have pushed low cost carriers (LCCs) towards the legacy model, and the pressure of competitive pricing has shifted legacy carriers closer to LCCs. Although some purist LCCs still remain in the market, many have already moved away from that model. One of the hot topics of this somewhat blurring distinction is code sharing. It was noted that this will be a possibility in the future but is still somewhat hampered by the information technology systems used by LCCs and network carriers respectively. Reservation systems used by LCCs are, in most cases, only built for point-to-point traffic and restricted in dealing with baggage.

2. THE NORTH AMERICAN MARKET IS GROWING VERY SLOWLY – SO GROWTH OPPORTUNITIES LIE ELSEWHERE

There was consensus among panellists on one point: the North American market is growing very slowly these days. Rising fuel prices and stagnant economic growth are making route expansion inside the U.S. less profitable and causing airlines to either try capturing market share from other airlines, or to focus on emerging markets in Latin America and China where growth potential is significant.

3. TODAY'S AIRPORTS HAVE TO BALANCE LOW AIRPORT PRICING EXPECTATIONS BY AIRLINES, ESCALATING INCENTIVES FROM COMPETITORS – WHILE MANAGING CAPACITY CONSTRAINTS

As airlines reflect the needs of customers, airports compete for airline attention and spend a lot of money presenting themselves to airlines, in addition to competing for customers directly. Communicating clearly with airlines, identifying good point-to-point opportunities to expand the network and simultaneously keeping the focus on the catchment area are all crucial to the survival of an airport.

4. ROUTE FINANCING AND FUNDING MUST BE WIN-WIN DECISIONS TO BE SUCCESSFUL

Supporting route deals can bring business to an airport that could have not been previously generated. At a panel on route financing and funding, Amit D. Rikhy, Vice President, Business Development, Vancouver Airport Services, said that although it is important to attract airlines through these types of deals, the economics of a new route still need to match up and underlying markets have to be strong enough to support development. The panel also voiced the issue of financing

responsibility and highlighted the impact of these deals on the wider tourism community. Hotels, governments and agencies all benefit from new routes and should therefore also be included in the financing. Airlines should involve the private sector in their negotiations and try to achieve long-term commitment to support route deals.

5. TOURISM IS INCREASING IN DESTINATIONS WHERE THERE IS A HEALTHY RELATIONSHIP BETWEEN AIRPORT, AIRLINE AND TOURISM AUTHORITY

Participants in a session entitled, 'Airline and Tourism Authority: the Golden Triangle', agreed that tourism was increasing in destinations where there was a healthy relationship between airport, airline and tourism authority and pointed to Las Vegas as a great example. Panellists questioned why more parties in the 'golden triangle' weren't cooperating together and said it was often something as simple as personalities of the key players which was hampering cooperation. The key to the relationship was defined as having a sense of shared risk, which meant that each of the three stakeholders were likely to give more to the relationship if there was a chance for progressive route development and increased tourism.


6. THE TRADITIONAL ROLE OF AN AIRPORT AS A TRANSPORTATION BASE IS CHANGING

At a panel entitled, 'The Power of Airport Developments on Local and Country Economies', it was stated that the traditional role of an airport as a transportation base was changing and that, more than ever, airports were expected to meet customer needs and create new demand. Jost Lammers, CEO, Budapest Airport, shared his view based on a study that Budapest Airport commissioned which proved that their investment in Budapest Airport was a key driver in bringing considerable economic benefit to the whole region.

7. SOCIAL MEDIA IS CHANGING THE WAY AIRPORTS, AIRLINES AND OTHER ROUTE STAKEHOLDERS TALK TO CUSTOMERS

A session entitled, 'The Next Leap in Social Media' focused on how social media is bringing a new and immediate dimension to the way in which airports, airlines and other route stakeholders engage with their customers - although there was a marked difference between those parties who had woken up to the opportunity and those who were still operating in the "social media dark ages." Twitter, in particular, was described as a highly-effective tool for airports and airlines to get messages out quickly to customers, while destinations were more likely to gain benefits from Facebook – with Tourism Australia and Tourism Queensland cited as examples of destination companies which had achieved this to great effect. ■

REGIONAL AVIATION SAFETY GROUP – PAN AMERICA SIGNS HISTORIC AGREEMENT

 The Regional Aviation Safety Group – Pan America (RASG-PA) has signed an historic agreement to exchange safety information with the Aviation Safety Information Analysis and Sharing System (ASIAS), which is managed by the Federal Aviation Administration (FAA) under the governance and guidance of the Commercial Aviation Safety Team (CAST).

The agreement is a significant safety achievement.

It is the first information sharing undertaking by CAST/ASIAS with any entity outside the United States. It is also a first step towards the accomplishment of worldwide information sharing as agreed at the ICAO High-Level Safety Conference held in Montréal in October 2011.

The signing of the landmark agreement stems from the mission of RASG-PA. One of the primary goals of RASG-PA is to facilitate the sharing of safety information and experiences among all stakeholders in the Pan American region. With this objective in mind, RASG-PA is working with states in the region to develop programmes to share high-level, de-identified flight operational quality assurance (FOQA) data or trend information for improving aviation safety. The safety information provided assists RASG-PA with assessing the effectiveness of its safety enhancement initiatives and determining whether other safety enhancements should be introduced.

Early in 2011, RASG-PA, through the assistance of its CAST members, began to work on an agreement to exchange safety information with ASIAS, which connects 46 safety databases across the industry and is integrated into the Commercial Aviation Safety Team (CAST) process.

The objective of the information exchange is to assess the effectiveness of the RASG-PA safety enhancements beginning with runway excursions, which is a key focus area for RASG-PA. Additionally, RASG-PA seeks to change the current approach to safety mitigation from a reactive to a predictive safety environment. Since unstabilized approaches are a major contributing factor in the cause of runway excursions, the group is collecting data in order to examine unstabilized approaches at various airports.

In October of 2011, CAST members agreed that an exchange of safety information with RASG-PA would be a valuable step

towards improving global aviation safety. In December 2011, the RASG-PA Secretary and ICAO NACC Regional Director, Mrs. Loretta Martin, along with RASG-PA Co-Chairs, Mr. Oscar Derby, DGCA, Jamaica, and Mr. Alex de Gunten, ALTA Executive Director, signed a formal agreement to exchange safety information with ASIAS. ■

About RASG-PA

The Regional Aviation Safety Group – Pan America (RASG-PA) was established in November 2008 as the focal point to ensure harmonization and coordination of efforts aimed at reducing aviation safety risks for the Pan American region.

RASG-PA supports implementation of the ICAO Global Aviation Safety Plan (GASP) and the Industry Safety Strategy Group (ISSG) Global Aviation Safety Roadmap (GASR). In addition, it was the first multi-regional body in the world unifying government aviation agencies and industry that is established to address flight safety issues.

RASG-PA complies with the ICAO Council approval of Regional Aviation Safety Groups (RASGs) with the objective of addressing global aviation safety matters from a regional perspective.


About CAST

Founded in 1998, the Commercial Aviation Safety Team (CAST) has developed an integrated, data-driven strategy to reduce the commercial aviation fatality risk in the United States and promote new government and industry safety initiatives throughout the world.

About ASIAS

The Federal Aviation Administration (FAA) promotes the open exchange of safety information in order to continuously improve aviation safety. To further this basic objective, the FAA developed the Aviation Safety Information Analysis and Sharing (ASIAS) system. The ASIAS system enables users to search an extensive warehouse of safety data, and display pertinent elements in an array of useful formats.

GLOBAL AVIATION SECURITY STRATEGY GAINS MOMENTUM

 Fourteen Asia/Pacific States met in Kuala Lumpur on 12 January 2012 and adopted a comprehensive strategy to systematically improve passenger and cargo security throughout the region, part of a global initiative aimed at countering new and emerging threats to air transport worldwide.

Y.B. Dato' Seri Kong Cho Ha, Minister of Transport of Malaysia, said the Conference represented, "a commitment to strengthening aviation security and protecting civil aviation in the Asia/Pacific region." He identified greater openness of security audit results, sharing of data, increased collaboration among States, and effective partnering of regulators and industry, as critical elements to achieve more effective aviation security.

ICAO General, Raymond Benjamin, praised State representatives "for agreeing on specific actions that reflect the particular security needs of the region while further contributing to a worldwide solution to the problem of terrorism aimed at international aviation."

To further improve national, regional and global aviation security, participants agreed on collective action to address threats to the air transport system. This includes:

- assistance to States in capacity building and strengthening of national security systems
- closer cooperation with customs, border control authorities and other bodies to strengthen the global supply chain system for air cargo
- implementation of sustainable security measures to ensure the highest degree of passenger and cargo facilitation.

The Kuala Lumpur Security Conference was the fourth in a series of events aimed at promoting the implementation of an ICAO Declaration on Aviation Security. The first took place in New Delhi (India), followed by Dakar (Senegal) and Moscow (Russia), in advance of a global, high-level security conference at ICAO Headquarters in Montréal, from 12 to 14 September. Two other regional conferences were planned for 2012 in Venezuela and the Middle East. ■



SPEAKING OF SECURITY

REGIONAL CONFERENCE ON AVIATION SECURITY, MOSCOW – 21/22 NOVEMBER 2011

"...effective action against terrorist threats and acts of unlawful interference in air transport activity is possible only through the concerted action of all members of the aviation community" – **Deputy Prime Minister of the Russian Federation, Mr. Sergei Ivanov.**

REGIONAL CONFERENCE ON AVIATION SECURITY, DAKAR – 18 OCTOBER 2011

"Africa's recognition of the need for action to address the terrorist threat, whatever form it may take, is truly inspiring because it contributes to a global solution to the global problem," – **President of the Regional Conference, Dr. Harold Demuren of Nigeria.**

REGIONAL CONFERENCE ON AVIATION SECURITY, NEW DELHI – 15 FEBRUARY 2011

"We stressed our support for the ICAO Declaration on Aviation Security as a comprehensive global framework of policy priorities for: strengthening civil aviation security through international cooperation and the individual actions of States..." – **excerpt from joint statement of the Regional Aviation Security Conference.**

NEWS IN BRIEF



RUSSIAN FEDERATION, ICAO SHARE VIEWS ON AVIATION SECURITY AND SAFETY

On the occasion of a Regional Conference on Aviation Security held in Moscow last November, ICAO Secretary General Raymond Benjamin met with Vladimir Putin, Prime Minister of the Russian Federation, to share views on a variety of aviation topics including safety and security.

In the course of the meeting, Mr. Putin stressed that cooperation with ICAO has always been very important for Russian civil aviation.

“This year 60 million passengers will be transported by air within Russia,” said Mr. Putin. “The number of air passengers continues to grow. We have another programme that runs until 2015, to improve flight safety. We have allocated 160 billion roubles for it, or about US\$5.3 billion at the current exchange rate.”

Mr. Putin noted that aviation is a fast-growing, high-tech industry and Russia would like to develop further cooperation with all its traditional partners, based on international agreements and regulations and within the ICAO framework.

In his remarks to the Prime Minister, Mr. Benjamin praised the commitment of the Russian Federation to security and international efforts to develop a comprehensive security strategy, culminating in European Member States of ICAO committing to a wide-ranging strategy aimed at significantly improving aviation security at the national and regional levels. Mr. Benjamin also expressed his desire to expand cooperation between ICAO and Russia.

“As you have noted, Mr. Prime Minister, our cooperation dates back years, and I believe we can expand this cooperation still further. I have already proposed a



Left: I. Levitin, Minister of Transport of the Russian Federation; V. Putin, Prime Minister of the Russian Federation.

Right: Dr. T. G. Anodina, Chairperson of the Interstate Aviation Committee (IAC), R. Benjamin, Secretary General of ICAO, A. Novgorodov, Representative of the Russian Federation on the Council of ICAO.

Photo is from the press-service of the Prime Minister of the Russian Federation

partnership between ICAO and Russia in Europe,” said Mr. Benjamin. “ICAO is a global organization and we establish guidelines at the international level. But the only way for us to assure that these guidelines are observed is to establish partnerships with specific countries, such as Russia.”

“I believe that we can build on existing relations and further cooperate with regional organizations such as the Interstate Aviation Committee (IAC), notably in the area of technological developments, something that could benefit all of the region’s countries,” he added.



CONGO DEPOSITS INSTRUMENT OF ACCEPTANCE

On 19 December 2011, during a brief ceremony at ICAO Headquarters, the Republic of the Congo deposited its instrument of acceptance of the Montréal Convention of 1999 and instruments of ratification of the Protocols of amendment to the Chicago Convention related to Articles 3 bis and 83 bis. Shown on the occasion are (from left to right): Mr. Georges Moussouanga, consultant, Civil Aviation Authority, Congo (ANAC); Mr. Roméo Makaya Batchi, legal adviser to the Director General, ANAC; Mr. Maurice Badila, Head, Department of Treaties and International Agreements, Ministry of Foreign Affairs and Cooperation, Congo; and Mr. Denys Wibaux, Director, Legal Affairs and External Relations Bureau.

CHRISTIAN SCHLEIFER APPOINTED PRESIDENT OF ICAO ANC

The Council of the International Civil Aviation Organization (ICAO) has unanimously appointed Mr. Christian Schleifer, of Austria, to a one-year term as President of the Air Navigation Commission (ANC), the Organization's technical body. His mandate began on 1 January 2012.

Mr. Schleifer has been a Commissioner of the ANC since 2009. In 2011, he was elected by the ANC as first Vice-President.

As part of his duties as President of the ANC, Mr. Schleifer will be leading the Air Navigation Commission towards the 12th Global Air Navigation Conference in November 2012.

Mr. Schleifer is an experienced engineer in the area of Electric, Avionic and Flight Testing. For the past 13 years, he has worked with the Austrian Civil Aviation Authority (CAA) in the department of certification and airworthiness.



SIGNATURE BY CAMEROON

On 25 October 2011, during a brief ceremony at ICAO Headquarters, Cameroon signed the following four air law treaties: the General Risks Convention and the Unlawful Interference Compensation Convention adopted at Montréal in 2009; and the Convention and Protocol adopted at Beijing in 2010 that updates the aviation security legal framework.

Shown on the occasion, signing the treaties on behalf of Cameroon, is His Excellency Bello Bouba Maïgari, Minister of State and Minister of Transport. Witnessing the signing (right to left) are: Raymond Benjamin, Secretary General of ICAO; Pierre Tankam, Director General, Civil Aviation Authority of Cameroon (CAAC); Anu'a Gheyle Solomon Azoh-Mbi, High Commissioner of Cameroon in Ottawa;

Nkoue Nkongo Maximin, President of the Administrative Council, CAAC; Engelbert Zoa Etundi, Representative of Cameroon on the Council of ICAO; and Denys Wibaux, Director, ICAO Legal Affairs and External Relations Bureau.

ICAO SUPPORTS EUROPEAN AIRPORT CO₂ PROGRAMME AS IT EXTENDS TO ASIA/PACIFIC

At a ceremony on 29 November 2011 at the Emirates Palace in the presence of close to 800 aviation industry and institutional representatives, ACI EUROPE's flagship climate change initiative, Airport Carbon Accreditation, was formally extended to the Asia/Pacific region, in cooperation with ACI ASIA/PACIFIC. The launch of the programme in the Asia/Pacific region coincided with its recognition and support by the International Civil Aviation Organization (ICAO). As part of this, ICAO will participate in the Advisory Board of Airport Carbon Accreditation.



Taken at the signing ceremony of the launch declaration extending Airport Carbon Accreditation to the Asia/Pacific region of ACI. Left to Right: Olivier Jankovec, Director General, ACI EUROPE; Declan Collier, President ACI EUROPE and Chief Executive of Dublin Airport Authority; Kosaburo Morinaka, ACI Asia/Pacific Vice President & President & CEO of Narita International Airport; Patti Chau, Regional Director, ACI Asia/Pacific.

ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME RECERTIFIED

The Continuous Monitoring and Oversight (CMO) Section of the International Civil Aviation Organization (ICAO) has been recertified to the ISO 9001:2008 standard for quality management systems. It is the first Section within ICAO, and one of the very few within the United Nations, to receive such compliance.

The CMO Section of ICAO's Air Navigation Bureau manages the overall development, implementation and quality of the Universal Safety Oversight Audit Programme (USOAP) and its transition to the Continuous Monitoring Approach (CMA).

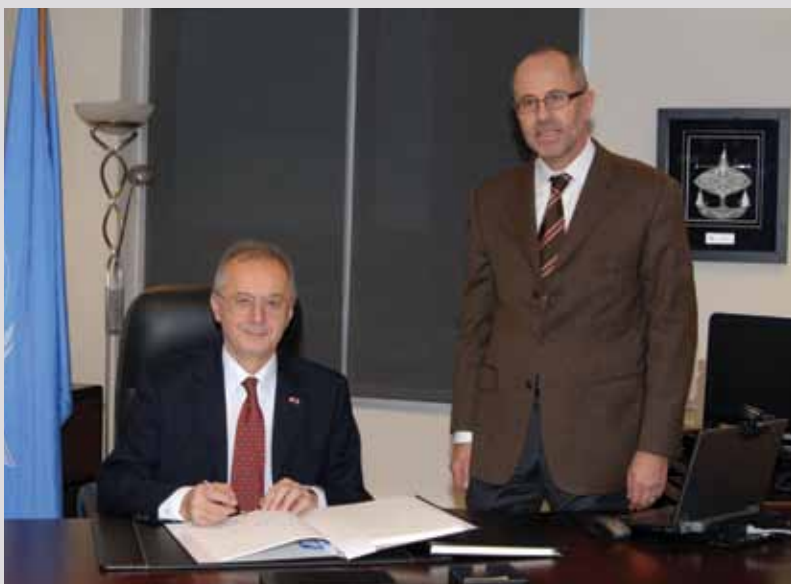
"Since the beginning of the audit programme, the ICAO Council expressed the need for a mechanism that would 'audit the auditors'. Recertification to the ISO 9001 standard provides ongoing confidence and assurance for the Council and States regarding the quality, transparency and consistency of the USOAP," said Roberto Kobeh González, President of the ICAO Council.

The recertification audit was conducted by National Quality Assurance (NQA), an independent, non-governmental certification body. The CMO certification scope covers the collection, processing and sharing of safety oversight information, the conduct of continuous monitoring activities and the provision of safety oversight training and seminars for the enhancement of global aviation safety.

"CMO has been certified to ISO 9001 since 2002. This is a sign of our determination to maintain and improve the quality and effectiveness of the USOAP and to further improve the level of aviation safety worldwide. A certified quality management system ensures that the needs and expectations of stakeholders are met, that we are proactive in identifying best practices, that processes are closely monitored and that activities are performed and managed in a more structured way," said Raymond Benjamin, Secretary General of ICAO.



ICAO Secretary General, Raymond Benjamin (right) receives the ISO 9001:2008 certificate from Mario David, Sales & Operations Manager for National Quality Assurance (NQA) - Canada



SIGNATURE BY THE CZECH REPUBLIC

On 23 November 2011, the Czech Republic signed the 2010 Beijing Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation and the 2010 Beijing Protocol to the 1970 Hague Convention for the Suppression of Unlawful Seizure of Aircraft. This brought the number of signatures to 23 and 25, respectively. Shown on the occasion (from left to right) are: His Excellency Karel Žebrakovský, Ambassador of the Czech Republic in Canada, and Mr. Denys Wibaux, Director, ICAO Legal Affairs and External Relations Bureau.

INAUGURATION OF OFFICE OF THE INDONESIAN REPRESENTATIVE

On 2 February 2012, Indonesia inaugurated its office at the International Civil Aviation Organization (ICAO) in Montréal, Canada. "I would like to extend a warm welcome to the Delegation from Indonesia on the occasion of the official opening of the Office of the Indonesian Representative to ICAO," said Roberto Kobeh González, President of the ICAO Council. "Your decision to open an office here will greatly facilitate and strengthen an already healthy dialogue between ICAO and Indonesia towards improving the safety, the security and the overall sustainability of the Indonesian air transport system."



Ribbon-cutting ceremony for the Opening of the Delegation of Indonesia to ICAO. From left to right: Raymond Benjamin, Secretary General of ICAO Bambang Susantono, Vice-Minister of Transportation, Republic of Indonesia; H.E. Dienne H. Moehario, Ambassador of the Republic of Indonesia to Canada and Representative of Indonesia to ICAO.

REPUBLIC OF SOUTH SUDAN JOINS ICAO

The Republic of South Sudan has become ICAO's 191st Member State by adhering to the Convention on International Civil Aviation. South Sudan became a Member State on 10 November 2011, 30 days after South Sudan's notification of adherence was received, on 11 October 2011, by the Department of State of the United States, which serves as Depository of the Convention. South Sudan's membership in ICAO will facilitate plans currently underway by the Organization's Technical Co-operation Bureau (TCB) to provide technical assistance to the State. An infrastructure-based improvement programme to enhance the safety of UN air operations in the country, in cooperation with the UN Mission to South Sudan, is underway and a proposal is being made to the Government of South Sudan for the development of a roadmap for the civil aviation sector.

Effective Global Leadership Through Balanced Priorities

ICAO ONLINE



ICAO website

<http://www.icao.int>

The redesigned, streamlined home of ICAO on the Internet includes information about: the Organization, strategic objectives, meetings & events, publications, online shopping (for ICAO aviation products and services in all key areas of air transportation) and employment.

ICAO on Twitter

<http://twitter.com/icaopress>

Stay in touch with ICAO Communications and follow the latest news and announcements.

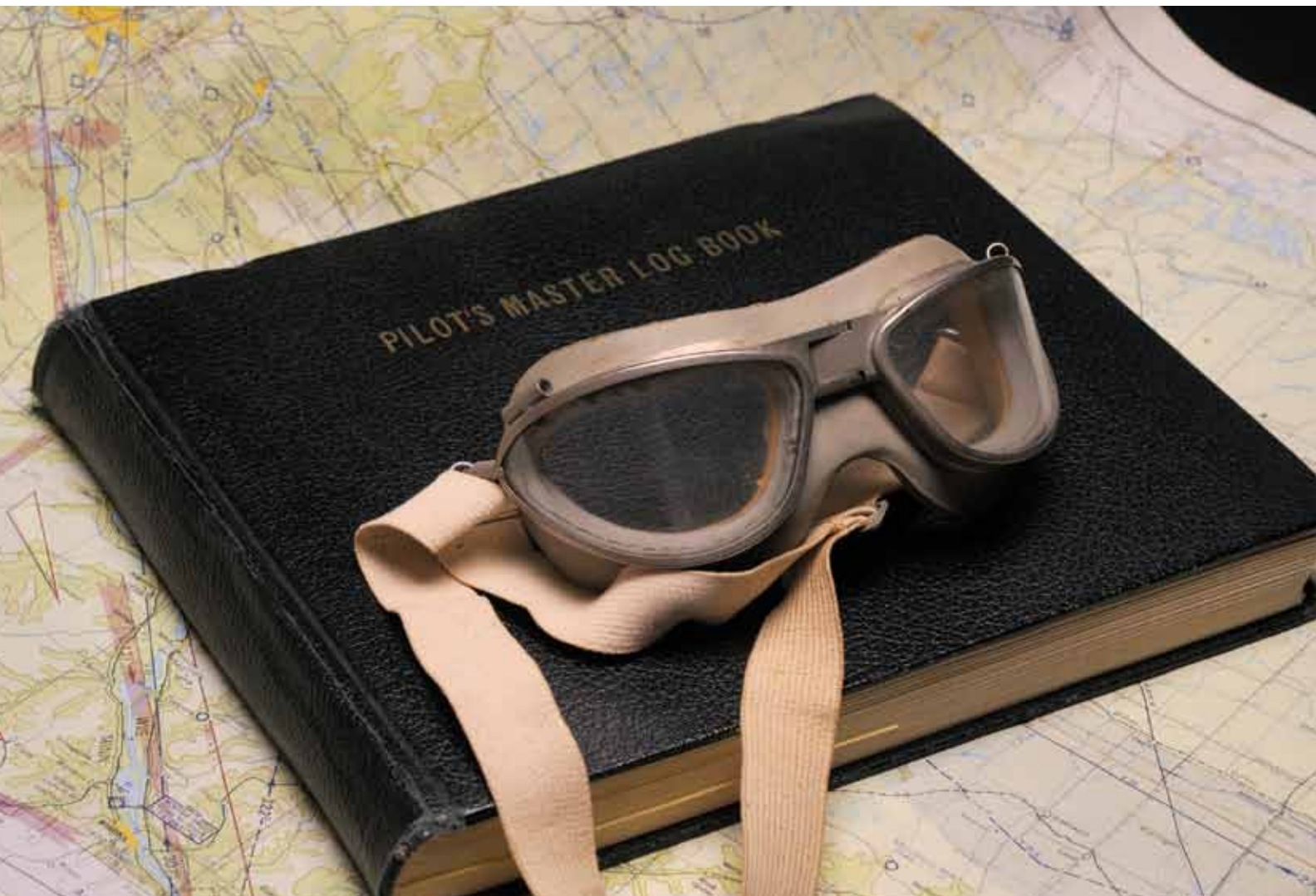


ICAO on YouTube

<http://www.youtube.com/icaovideo>

More than 25 ICAO videos and counting, including many entries in the AVIATION: THE FUTURE IS YOURS VIDEO CONTEST sponsored by ICAO, in collaboration with IATA and Halldale Media Group.

Become a subscriber and watch for more ICAO videos on issues and topics of interest to the global aviation community.



CELEBRATING 67 YEARS OF INTERNATIONAL COOPERATION

✈ Cooperation is the heart and soul of ICAO and International Civil Aviation Day (ICAD), celebrated on 7 December, serves as a poignant reminder of the cooperation among the Member States of ICAO, and with the air transport industry, which has led to the development of thousands of technical and operational standards, regulations and policies necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection.

“On 7 December, 67 years ago, a group of visionaries, meeting at the Stevens Hotel in Chicago, signed a document that would forever change our world,” said ICAO President Roberto Kobeh González. “International Civil Aviation Day, an official United Nations celebration, commemorates the establishment of the Organization on that momentous day.”

In his ICAD message, Kobeh González noted the theme for the 2011 celebration: ‘Assistance and Cooperation for Globally Sustainable Air Transport.’

“Over the years, the fundamental principles of assistance and cooperation have given rise to a remarkably safe and efficient global air transport system that supports economic, social and cultural development throughout our global society,” he said in a public statement. “Indeed, cooperation among the Member States of ICAO and with the air transport industry has led to the development of thousands of technical and operational standards, regulations and policies necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection.”

International Civil Aviation Day was established in 1994 by ICAO to mark the 50th anniversary of the Organization. In 1996, the United Nations General Assembly, by resolution, officially

DID YOU KNOW?

The Stevens Hotel in Chicago (which opened in 1927), birthplace of ICAO, was once the largest hotel in the world, featuring 3,000 guest rooms, a bowling alley, barber shop, rooftop miniature golf course, movie theater, ice cream shop and drug store. The hotel was eventually purchased by Conrad Hilton in 1945.

recognized 7 December as International Civil Aviation Day and listed it as an official UN day.

“ICAO will always stand ready to cooperate with and provide assistance to its Member States for the benefit of their citizens and the world community,” added Kobeh González.

Kobeh González invited States to embrace the themes of ICAD and celebrate International Civil Aviation through activities throughout 2012. Documentation will be circulated by ICAO to States for use in speeches, media events and other public presentations. Articles in the ICAO Journal, speeches and ICAO News Centre announcements are all ways in which ICAO will build support for the theme. ■

The Convention on International Civil Aviation was drawn up and signed at the Chicago Conference on 7 December, 1944. The Conference also provided for a provisional body. Since August, 1945, this body – PICA0 – has been in operation. PICA0 has brought about concerted action by the nations of the world in organizing and in maintaining the facilities and services necessary for international air transport and in establishing standards and procedures for the safety, regularity and efficiency of international air traffic.

PICA0 - *Provisional International Civil Aviation Organization* News Release,
Montréal, Canada - 11 March, 1947



FORUM

CAN ICAO ACT AS A CATALYST IN THE DEVELOPMENT OF ALTERNATIVE FUELS AMONG MEMBER STATES?

Aviation is a major driver of tourism and world trade. It enables the movement of people and goods around the globe, facilitating the growth of the world's economies. Industry estimates show that aviation's economic impact is roughly 8 per cent of the world's GDP (US\$ 3,560 billion), including air transport's direct and indirect effects on the world's economy. For a significant number of countries, aviation is the primary gateway to the world by supplying connectivity, bringing people together, and facilitating international commerce. It acts as a catalyst that fosters economic and social development.

CO₂ emissions from aviation are increasing in line with the industry's exponential growth. These emissions are forecast to grow by 3 to 4 per cent annually. Such an increase has attracted considerable negative attention from environmentalist groups. While environmental concerns have acted as a major impetus for the industry to reduce dependency on fossil fuels and to invest in research and development of alternative fuels, oil supply security issues and volatile energy market prices are other motivating factors.

In light of growing environmental concerns and fossil fuel security issues, government and industry stakeholders have collaborated to research and develop sustainable alternative fuels. There has been considerable advancement in the area of testing aircraft engines using various types of alternative fuels as manufacturers have demonstrated the possibility of using blends of drop-in alternative fuels with jet fuels. However, there are many challenges facing the industry's

efforts, especially during the phase of research and development of sustainable and economically-viable alternative fuels in industrial quantities.

The development of alternative fuels is universal and requires a set of guidelines and principles to ensure sustainability. Sustainability criteria for alternative fuels is not an issue exclusive to aviation. Governments are considering the application of such criteria to all alternative fuels – not just those used by aviation. To date, there is no global framework that provides appropriate sustainability criteria, especially with respect to identifying the best feedstock to reduce aviation CO₂ emissions through the development of alternative fuels. The industry is working with ICAO and is looking for a global standard that can be adopted by ICAO Member States. In the meantime, various coalitions involving governments, airlines, manufacturers and fuel suppliers are trying to establish a set of criteria to be adopted by a majority of stakeholders. Both regulatory and voluntary standards cover environmental, economic and social aspects of alternative fuel production. It has been difficult to agree on a global framework due to the complexity of agreeing on the set of criteria that will concurrently satisfy government, manufacturers and airlines.

At present, most countries do not have specific legal frameworks governing research and development of alternative fuels. Given this vacuum, further ICAO involvement may perhaps be appropriate. This legal framework should: i) set general principles for alternative fuels development; ii) ensure that supply is assured for the

aviation sector in sufficient quantities; iii) provide for a robust incentive structure; and iv) establish a regulatory body, defining its jurisdiction and main prerogatives. ICAO may develop guidance material on these issues.

As alternative fuels are currently still at the research and development stage, no harmonized general principles govern their development. The legal framework should, at the outset, tackle the broad principles.

Ultimately the goal is to develop and produce alternative fuels to be widely used in aviation. Most observers believe it is very likely that all modes of transportation, including but not limited to, the automotive, shipping and aviation sectors, will fiercely compete to have access to the Holy Grail: alternative fuels. Therefore, it is of utmost importance that the legal framework ensures that a significant portion of alternative fuel production should be directed towards the critical and expanding aviation sector. The legal framework should provide incentives for research and development of alternative fuels. Such policies are frequently enacted through tax relief and tax exemption programmes. More specifically, corporate income taxes are not levied on those pursuing research and development in the target area, in this case alternative fuels. The legal framework must also avoid imposing an overly bureaucratic administrative burden that may jeopardize alternative fuel production. The framework should strive to bring together all stakeholders including industry representatives, governmental authorities, non-governmental organizations and international organizations.

The aviation sector is growing at an extremely fast pace. This growth is translated into greater oil consumption and consequently a large CO₂ footprint. Air transportation is thus subject to tremendous pressure to enhance its environmental record. The use of alternative fuels may ease that pressure. There is a need to develop a concrete policy on alternative

“Alternative fuel development could position international civil aviation to gain a competitive advantage in this field which in turn may lead to unprecedented market opportunities”

fuels for the aviation sector. Alternative fuels are widely seen as key to developing a sustainable aviation industry which responsibly addresses its contribution to climate change. Aviation’s rapid growth has resulted in an increase of carbon dioxide (CO₂) emissions. Growth presents a number of challenges for the human environment. In addition, concerns over the security of fuel supply continue to represent a significant threat to the air transport industry. Alternative fuel development could position international civil aviation to gain a competitive advantage in this field which in turn may lead to unprecedented market opportunities. ICAO may very well assist its Member States in achieving this objective. ■



ABOUT THE AUTHOR

Capt. Aysha Al Hamili heads the Permanent Mission of the UAE to ICAO – the first-ever female Emirati in charge of a diplomatic mission, and the youngest ever Permanent Representative to ICAO. In November 2010, she was appointed one of the Council’s Vice-Presidents. Before coming to ICAO, Capt. Al Hamili was head of UAE’s General Civil Aviation Air Transport Department, where she was in charge of bilateral air services negotiations. In addition to her diplomatic and policy skills, Capt. Al Hamili holds an airline transport pilot license (ATPL). She received a bachelor’s degree in Social and Behavioural Sciences from Zayed University with an area of specialty in International Studies, and recently awarded a Masters Degree in Air Transport Management from City University of London. Capt. Al Hamili has written this paper in her personal capacity.

CHARTING THE FUTURE FOR SUSTAINABLE DEVELOPMENT OF AIR TRANSPORT AT ICAO AIR TRANSPORT SYMPOSIUM

 Although the industry experienced strong passenger traffic growth in 2011 (preliminary figures released by ICAO indicate a 6.4 per cent increase over the previous year in terms of passenger-kilometres performed), there is no doubt that there remain many challenges and issues on the way to sustainability.

Against this backdrop, the ICAO Air Transport Symposium (IATS), entitled “Strategies and Tools for Sustainable Air Transport”, will take place from 18 to 20 April 2012 at ICAO Headquarters in Montréal, Canada. The Symposium will be held in partnership with the Air Transport Research Society (ATRS).

The three-day conference will provide an updated picture of the air transport industry and examine specific trends such as consolidation and emerging air carrier models. A look into the future of the industry will be presented while panellists and speakers will address challenges posed to the sustainable development of air transport.

The Symposium provides a forum for interactive discussions and informed views from the civil aviation stakeholders that will assist in the preparation of the Sixth Worldwide Air Transport Conference (ATConf/6) to be held at ICAO Headquarters from 18 to 22 March 2013.

Sessions scheduled for the conference include: current status of aviation markets, airline mergers, alliances and consolidation trends, a panel discussion on financing the air transport industry chain, forecasting for a cyclical industry, a panel discussion on liberalization, open skies and regional/sub-regional bloc formation, air transport and its impact on economic development, new airline business models and air transport challenges and issues for the next decade.

Speakers will include high-level representatives from airlines, airports, States, air navigation service providers, aircraft manufacturers, financing institutions and international organizations. The introductory address will be delivered by the President of the Council of ICAO, Roberto Kobeh González. Opening remarks will be presented by Dr. Boubacar Djibo, Director, Air Transport Bureau, ICAO.

“The event is expected to attract a broad cross-section of stakeholders including regulators, industry leaders, researchers and other air transport specialists,” said Dr. Boubacar Djibo. “It will provide stimulating exchanges on topical issues and future strategies of the industry with the aim of arriving at a broad-based consensus on how to address the challenges facing the air transport industry.” ■



More information about the Symposium is available at <http://www2.icao.int/en/iats>



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