

ICAO

# JOURNAL

NEWS AND DEVELOPMENTS FROM THE INTERNATIONAL CIVIL AVIATION ORGANIZATION - VOL. 68 - NO. 6

## FORGING CONSENSUS

Reviewing the challenges and successes  
of the 38th ICAO Assembly

STATE PROFILE SPECIAL FEATURE:  
**ECUADOR**

ALSO IN THIS ISSUE:

PROGRESS ON THE PERIPHERY:  
ASSEMBLY SIDE DEVELOPMENTS

IPCC WGI ASSESSMENT OVERVIEW

UAE ASSEMBLY PERSPECTIVES



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UNITING AVIATION





## Collaborative Solutions to Future Challenges

Hosted by Bahrain's Ministry Of Transport (Civil Aviation Affairs), the second **ICAO-WCO Joint Conference on Enhancing Air Cargo Security and Facilitation** will heighten awareness among aviation security authorities, customs administrations and other stakeholders of the challenges facing the global air cargo industry. Participants will focus on methods to improve cooperation between Civil Aviation and Customs authorities and industry, in order to strengthen aviation and border security while facilitating the flow of cargo.

Featuring expert speakers from both the regulatory and industry realms, the event represents a unique opportunity to interact with senior policy makers, experts and practitioners from States and relevant international organizations, and to identify practical and effective solutions for addressing security, safety, customs and facilitation concerns. For more information or registration assistance please visit the event websites at [www.icao.int/meetings](http://www.icao.int/meetings) or [www.wcoomd.org/en/events/upcoming-events](http://www.wcoomd.org/en/events/upcoming-events)



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### CORRECTION NOTICE

In the Fourth Edition of the *ICAO Journal* (Volume 68 No. 4) there was an error in the geographic representation in the centrefold map. The corrected version can be viewed on page 25 of the Journal 4 PDF available on the ICAO website at: [www.icao.int/publications/Pages/ICAO-Journal.aspx?year=2013&lang=en](http://www.icao.int/publications/Pages/ICAO-Journal.aspx?year=2013&lang=en)



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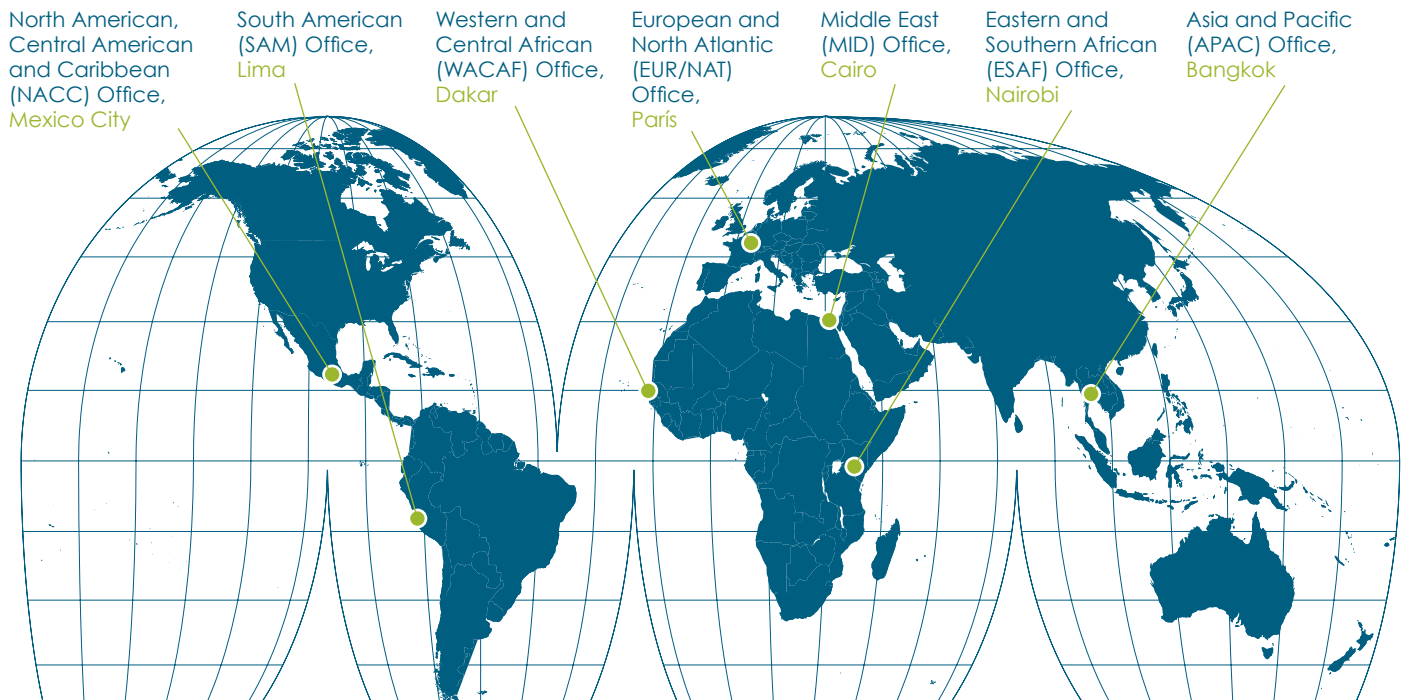
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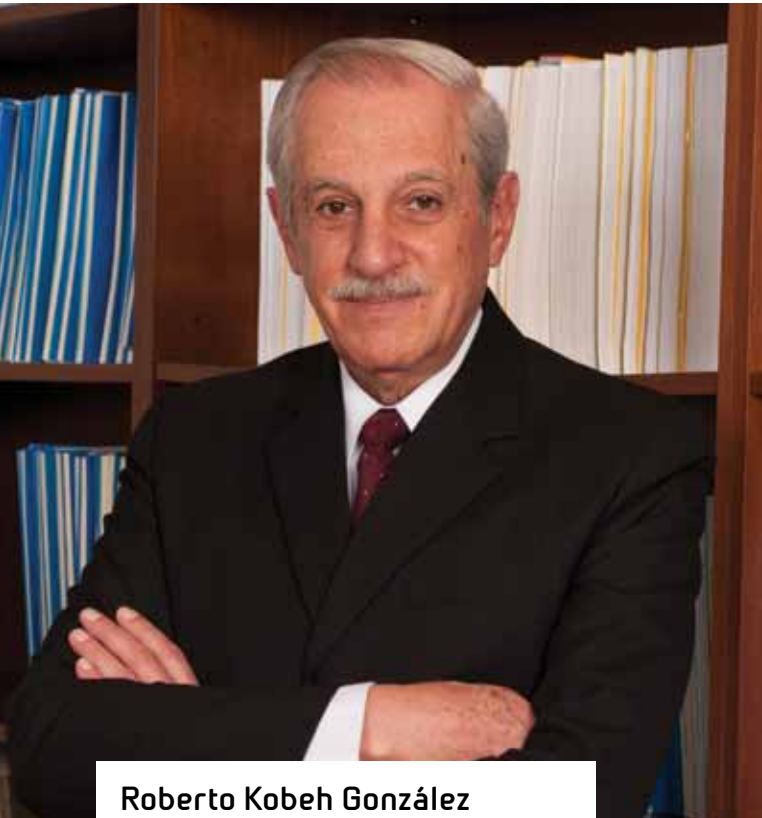
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## ICAO's Global Presence







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

## DEPARTING ON A HIGH NOTE

This message marks the last occasion I will have to welcome readers to a new edition of the ICAO Journal, as my second full term as President of the Council will be coming to a close at the end of the year.

It is a fortunate turn of events that the focus of the magazine is on the remarkable achievements of the recent 38<sup>th</sup> Session of the Assembly (A38). These include the strong endorsement of ICAO's revised Global Plans for Aviation Safety and Air Navigation Capacity and Efficiency, agreement on ICAO's goal to drive more complementary Security and Facilitation solutions, agreement on a proposed path towards a framework for mitigating aviation's greenhouse gas emissions, and recognition that we must adapt the air transport regulatory framework to encourage multilateral agreements and assure sustainable levels of operator profitability.

While these decisions were taken at the Assembly, we must remind ourselves that they are the result of an elaborate,

ongoing consensus-building process that considered the specific and sometimes divergent needs and aspirations of the Organization's 191 Member States.

Over the past three years since the last Assembly, the Secretariat conducted wide-ranging and well-attended outreach activities, including regional seminars and workshops, to foster constructive dialogue around strategies and work plans for addressing common challenges. The consultative exercise culminated in once-in-a-decade divisional meetings and world gatherings such as the Twelfth Air Navigation Conference of November 2012 and the Sixth Worldwide Air Transport Conference in March of this year. The successful outcome of these groundbreaking events was critical to the strong endorsement received at A38 on ICAO's budget, strategic objectives and work programme.

Adding to the scope, relevance and timeliness of the Resolutions of the 38<sup>th</sup> Session of the Assembly, not to mention those of past Assemblies, was the enthusiastic and sustained collaboration consistently demonstrated by the world aviation community.

Year in and year out, international organizations and regional bodies bring forth essential perspectives from the airline, airport and air navigation services communities. These viewpoints help to ensure that governments are agreeing through ICAO on measures and policies that are practical, productive and sensitive to the very challenging technical, operational and financial environment faced by stakeholders of the global air transport system.

I take this opportunity to also recognize organizations that may not be directly involved with civil aviation, but that nevertheless contribute significantly to its safety, security and overall sustainability. There are very few sectors of our global society that are not affected by or that do not benefit from air travel. They too have a stake and I would say a responsibility to help maintain the integrity of air travel for all, in good times and times of crisis.

Together, and only together, can we perpetuate the vision of the Chicago Convention and the will of its Member States: *"...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."*

As I prepare to leave office, I am heartened by the election by acclamation of Dr. Olumuyiwa Benard Aliu of Nigeria as the new President of the Council. ICAO is in very good hands as it sets its sights on an exciting and demanding future.

In closing, I wish to express my sincere appreciation to all those within ICAO and around the world who have made these last few years some of the most memorable of my life. It has truly been an honour and a privilege to serve the world community. ■



Vanda D'Alonzo Photography

# STRONG GLOBAL PLAN ENDORSEMENTS AND IMPORTANT MBM PROGRESS HELP DELIVER LANDMARK ICAO 38<sup>th</sup> ASSEMBLY

✈ ICAO concluded its landmark 38<sup>th</sup> Assembly with endorsement from its Member States on sector-wide strategic planning and exceeded many expectations when it agreed to develop a global market-based measure (MBM) scheme for international aviation.

“This MBM agreement is an historic milestone for air transport and for the role of multilateralism in addressing global climate challenges,” affirmed ICAO Council President Roberto Kobeh González. “Once again, our States have shown that significant boundaries can be surpassed when we agree to recognize and accommodate our varying circumstances while progressing together towards common goals. Through perseverance and compromise by our Member States and the guidance of our Assembly President and Executive Committee Chair, France’s Michel Wachenheim, we have ultimately determined our greener way forward.”

ICAO’s States agreed to work toward a 2016 deadline on a proposal for a global MBM scheme capable of being implemented by 2020. Major efforts will need to be undertaken and many viewpoints considered in order to address the challenges which persist and accommodate specific concerns of developing countries as the process continues.



## NEW STRATEGIC TOOLS TO MANAGE THE DOUBLING OF AIR TRAFFIC

The 38<sup>th</sup> ICAO Assembly also strongly endorsed two revised and significant ICAO Global Plans. Now served by complementary collaborative methodologies and clear operational performance objectives in the areas of Safety and Air Navigation, the new ICAO strategy documents will be instrumental to how States and industry unite over the coming decades to safely expand air traffic capacity and efficiently accommodate the projected doubling of air traffic by 2030.

“ICAO has received clear support at this Assembly for its global and tactical planning across all five of our 2014-16 strategic objectives,” stressed ICAO Secretary General, Raymond Benjamin. “These decisions will now help us to ensure and enhance air transport’s critical role in securing and facilitating the free movement of people and goods, expanding global markets, and promoting broader and more sustainable social and economic prosperity worldwide. We have much work still before us but also a very clear mandate from our States to ensure practical and effective progress across the board.”

In all, 1,845 participants from 184 Members States and 54 observer delegations helped make the 38<sup>th</sup> Assembly the largest in ICAO’s history. A brief summary of the meeting’s results with respect to ICAO’s: Safety; Air Navigation Capacity & Efficiency; Security & Facilitation; Economic Development of Air Transport; Environmental Protection; as well as its general Legal objectives, follows.

## SUMMARY OF MAJOR DEVELOPMENTS

### Safety

In the Safety domain, the 38<sup>th</sup> ICAO Assembly reiterated that global aviation’s first and guiding commitment is to reduce the rate and number of accidents worldwide. It also confirmed this work will now be guided by incremental targets established in a revised *ICAO Global Aviation Safety Plan* (GASP) which received strong Assembly endorsement.

The revised GASP gives ICAO a clear mandate to continue driving greater transparency, collaboration and responsiveness in safety improvement through real-time analysis and reporting cycles and greater regional accountability. It also sends a strong message that collaboration and partnership on air transport’s sector-wide safety challenges remain essential to delivering positive results.

Based on further Assembly support it received, ICAO will be furthering these efforts in the years to come through more intensive engagement with all regional players, and the sensible protection and sharing – where appropriate – of critical safety information.

### Air Navigation Capacity & Efficiency

Continuing Safety progress will now be enhanced by complementary Air Navigation analysis and reporting cycles, as confirmed by the Assembly’s similarly strong endorsement of the revised *ICAO Global Air Navigation Plan* (GANP).

The GANP will permit ICAO to practically and flexibly realize the long, sought-after goal of a globally-harmonized Air Navigation system. With its systems-engineering approach formalized in ICAO’s collaboratively-determined aviation system block upgrades, the revised GANP provides unprecedented levels of transparency and planning certainty to States, regional implementation groups, service providers, airspace users and industry stakeholders. It provides clear guidance on the required operational targets and supporting standards needed over the next 15 years, not to mention the specific technologies, procedures and regulatory approvals upon which these will be based.

“As world air traffic is expected to keep increasing in the years ahead, it is imperative that the international community work as one to reduce the global accident rate. The importance of ICAO’s continued commitment to safety cannot be underestimated. The targets contained in the revised GASP and the system block upgrades in the GANP are designed to facilitate measurable progress using collective input, greater transparency and increased harmonization,” commented Nancy Graham, Director of ICAO’s Air Navigation Bureau.

### Security and Facilitation

By endorsing the Council’s Decisions on Security and Facilitation, the Assembly confirmed ICAO’s emphasis on achieving greater balance between effective control measures and system-wide connectivity and efficiency. Risk-management-based prioritization, mutual recognition



ICAO Secretary General Raymond Benjamin (left) and Council President Roberto Kobeh González explain the Assembly’s major priorities to assembled international media on day one of the 38<sup>th</sup> Assembly.

of equivalent security measures and other key principles will now serve as foundational components to future Security and Facilitation discussions in ICAO.

ICAO Member States further acknowledged the progress made since the 37<sup>th</sup> Assembly in enhancing civil aviation security, notably through the strengthening of Annex 17 Standards and Recommended Practices (SARPs) dealing with air cargo, the delivery of technical assistance and cooperation in all regions, and the completion of the second cycle of the Organization's Universal Security Audit Programme (USAP).

"Our mission has been the development and maintenance of globally harmonized SARPs and to promote global aviation security through regular audits to determine the status of implementation of ICAO security Standards," stated Boubacar Djibo, Director of ICAO's Air Transport Bureau. "As a result of the valued input of various disciplines, the 38<sup>th</sup> Assembly was instrumental in furthering these measures."

The Assembly also endorsed new directions in the Security and Facilitation area, such as the Continuous Monitoring Approach (CMA) to security audits and ICAO's new Traveller Identification Programme strategy. Above all, the Assembly outcomes reinforced that success in aviation Security and Facilitation must be built on a foundation of improved international cooperation.

### Economic Development of Air Transport

The Assembly endorsed the new ICAO Strategic Objective aimed at the Economic Development of Air Transport. Also endorsed were the recommendations delivered by the Sixth Worldwide Air Transport Conference (ATConf/6) and the Organization's future work plan in the areas of forecasting, economic analysis and statistics.

ICAO will consequently have a stronger mandate for the coming triennium to lead development on a long-term vision for liberalization, a global regulatory framework and related policy guidance. Key to these efforts will be the development of international agreements to facilitate liberalization of market access, air carrier ownership and control and air cargo service, as well as ICAO's continued provision and enhancement of the ICAN facility to support States' efforts in international air transport liberalization.

"The economic development of air transport involves fostering a sound and economically viable civil aviation system engendered by an environment conducive to forging new approaches to liberalize market access while safeguarding fair competition," stated Djibo. "Since the 37<sup>th</sup> Session of the Assembly, the focus of ICAO's work in the field of air transport policy and regulation has been the promotion of ICAO practical policy guidance on the economic aspect of sustainable air transport development," he added.



Close to 2,000 Ministers, high-level officials and delegation support staff came to Montréal this fall to approve ICAO's budget and work programme for the coming triennium.





Vanessa D'Alonzo Photography

38<sup>th</sup> Assembly President Michel Wachenheim of France (centre), working in close conjunction with ICAO Secretary General Raymond Benjamin (left) and ICAO Council President Roberto Kobeh González (right), was instrumental in helping to keep delegates on course with respect to some of the meeting's key endorsements and agreements.

The development of core principles for consumer protection were recognized by the Assembly as a further matter of priority for ICAO, as was the development of guidance on the impact of taxation and charges on air transport. The Organization was also directed to provide guidance on: the funding and financing of aviation infrastructure development; safety, security and economic oversight functions; as well as incentive mechanisms to support the timely implementation of the aviation system block upgrades.

### Environmental Protection

In the area of Environmental Protection, the Assembly recognized ICAO's tremendous progress during the last triennium, and reaffirmed its collective aspirational goals and agreed on a comprehensive strategy to progress all elements of the basket of measures, namely technology, operations and alternative fuels and set forth a very ambitious work programme for capacity-building and assistance to States in the development and implementation of their action plans to reduce emissions.

The development of a new aircraft noise Standard was clearly welcomed by the Assembly, and further work towards the establishment of robust particulate matter and CO<sub>2</sub> emissions Standards by the 39<sup>th</sup> Assembly in 2016 was fully encouraged. ICAO's achievements with environmental tools were similarly supported, notably with respect to its Fuel Savings Estimation Tool which facilitates assessment of the environmental benefits of operational measures. Also strongly endorsed was ICAO's continuing work to aid wider implementation of sustainable alternative fuels.

The submission of State Action Plans, representing more than 80 per cent of international traffic during the last triennium, was recognized as a significant achievement by the Assembly. ICAO also received separate and strong signs of support for this work through announcements of related financial assistance by the Global Environment Facility (GEF) and potential future commitments from the European Union (EU).

In addition to ICAO's many recent achievements and future work with new technologies, operational measures and sustainable alternative fuels to improve aviation's environmental performance, the topic of a global solution for a market-based measure (MBM) to complement these technical and operational efforts was a more complex area where full Assembly consensus was concerned.

In the end, ICAO forged consensus amongst its States on a draft timetable for the development of a global MBM scheme for international aviation. Though much work remains before States reach the aviation MBM finish line, the A38 agreement reflected the strong support for a global solution for a global industry, as opposed to a possible patchwork of different measures to address international aviation emissions.

"The substantial results on aviation and the environment achieved at this Assembly are a testimony to the hard work and collaborative efforts among States and industry in their resolve to develop global solutions to address the environmental effects of international aviation," stated Djibo.


### Legal Developments

In the legal field, the Assembly adopted a resolution to promote the ratification of the Beijing Convention and the Beijing Protocol of 2010. These two new treaties have broadened and strengthened the global aviation security regime as it continues to strive to address new and emerging threats.

The Assembly also adopted another resolution to promote the ratification and urge universal adoption of the Montréal Convention of 1999, in order to realize the full benefits from its implementation. This instrument modernizes the legal regime regarding air carrier liability and facilitates the use of paperless air transport documents. ■

# ICAO/SINGAPORE AVIATION ACADEMY (SAA) SAFETY WORKSHOP FOR DIRECTORS GENERAL OF CIVIL AVIATION

In addition to the core Assembly developments, ICAO used the occasion of A38 to reach agreement and canvass global opinion on several key priorities, as described in the following pages.

 Two workshops were held on 29 September and 6 October, with a total of 58 Directors General and other senior officials participating in the events. Only one workshop had originally been planned for 20 participants, but the numbers grew quickly, leading to a second session.

Under the theme, “The Director General’s Obligations: What Every DG Should Know,” the workshops addressed legislative issues (national legislation enacting processes, regulatory frame works); organizational issues (structure, financial resources, retention of highly qualified staff); and technical oversight issues (certification activities, licensing, surveillance Programmes, qualification of technical personnel).

In order to collect information regarding experiences and challenges in the implementation of these three specific areas of responsibility, the participants were split into three groups and rotated between break-out sessions, eventually covering all three areas.

The workshops began with the fundamental question, “How many of you had a clear understanding of the Director General’s obligations when you were appointed DG?”

Event presenter Henry Gourdji, Chief Continuous Monitoring & Oversight Section, Air Navigation Bureau, ICAO, noted that this question applies to individuals escalating the corporate ladder within the Organization or those who were appointed directly, leaving their position in the aviation industry, suggesting that there were most likely areas where a thorough briefing would have been appreciated. “You probably learned the hard way that legal and administrative restrictions were more difficult than you had thought and could make your life quite difficult,” stated Gourdji. “Retention of key technical personnel and the financial challenges to retain them are examples of such restrictions.”

Gourdji discussed the proposed development of a Directors General of Civil Aviation (DGCA) Programme. This initiative could offer high-level induction training for newly appointed DGCA, providing them and their deputies with a broad understanding of the ICAO aviation safety framework and the practical aspects of its implementation. The Civil Aviation Authority of Singapore, through its Singapore Aviation Academy, is partnering with ICAO to develop this course.

The participants’ role in the Workshops was essential in helping the Organization determine the parameters that need to be taken into consideration in the development of a DGCA course, as well as to foresee the learning objectives that will need to be achieved with this training activity. ■





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A Directors General of Civil Aviation (DGCA) Programme could offer high-level induction training for newly appointed DGCA's, providing them and their deputies with a broad understanding of the ICAO aviation safety framework and the practical aspects of its implementation. The Civil Aviation Authority of Singapore, through its Singapore Aviation Academy, is partnering with ICAO to develop this course.

# MINISTERIAL BRIEFING ON THE COMPREHENSIVE REGIONAL IMPLEMENTATION PLAN FOR AVIATION SAFETY IN AFRICA (AFI PLAN)

✈ On 23 September 2013, ICAO briefed African Ministers, Directors General of Civil Aviation, as well as representatives of international and regional organizations, aviation safety partners and financial institutions, on the status of aviation safety in Africa, the implementation of the AFI Plan and its continuation for the next triennium (2014-2016).

More than 200 participants, including 22 African Ministers, attended the briefing. The President of the Council opened the event and delivered his opening remarks, followed by Dr. Benard Aliu, Representative of Nigeria on the Council of ICAO and then Chairman of the AFI Plan, as well as the ICAO Secretary General. Dr. Aliu introduced Hon. Aku Dzifa Attivor, Ghana's Minister of Transport, who acted as Chairperson of the briefing.

The Director of the Air Transport Bureau delivered a presentation on air transport in Africa and its role in the economic growth and sustainable development of the continent. Pointing to the history of air traffic growth in the region, and projecting to 2030, he indicated what governments should do to maximize positive impacts of air transport and connectivity, including sufficient funding of aviation infrastructure and the establishment of effective oversight functions.

The Director of the Air Navigation Bureau remarked on key areas of safety performance in Africa, as well as the decisions and the progress made in attaining the aviation safety targets adopted during the Ministerial Conference on aviation safety in Africa held in July 2012 in Abuja, Nigeria and endorsed by the



More than 200 participants, including 22 African Ministers, attended the ICAO AFI Plan Briefing. Roberto Kobeh González, President of the ICAO Council, opened the event with keynote remarks and was followed by Dr. Benard Aliu, Council President-elect and Representative of Nigeria and then Chairman of the AFI Plan. ICAO Secretary General Raymond Benjamin also greeted the assembled dignitaries, and Dr. Aliu had the pleasure of introducing the Hon. Aku Dzifa Attivor, Ghana's Minister of Transport, who acted as Chairperson of the briefing.

Assembly of Heads of States of the African Union in January 2013. She introduced the African performance dashboard developed to monitor the attainment of the Abuja safety targets, which is available at [www.icao.int/safety/DashboardsDocumentation/Aviation%20Safety%20Targets%20for%20Africa.pdf](http://www.icao.int/safety/DashboardsDocumentation/Aviation%20Safety%20Targets%20for%20Africa.pdf).

The ICAO Regional Director of Western and Central African States, Mr. Mari Sait Jallon, presented major activities undertaken under the AFI Plan which was established in January 2008 to support African States in addressing aviation safety deficiencies. It was mentioned that since 1 January 2011, the implementation of the AFI Plan has been led by the ICAO Regional Offices in Dakar and Nairobi and supported by ICAO Headquarters, Member States and aviation safety partners. The following achievements were mentioned:

- Fifty-seven training courses, workshops and seminars benefitting 2,354 officers
- The establishment of the Association of African Aviation Training Organizations (AATO)
- The development of 26 ICAO Plans of Action to support States with serious safety deficiencies
- The implementation of the AFI Co-operative Inspectorate Scheme (AFI-CIS) in collaboration with AFCAC
- The establishment and strengthening of Regional Safety Oversight Organizations (RSOOs) encouraging States not to join more than one RSOO, unless the Organization in question provides different functions
- States' improvement on the Effective Implementation (EI) of the critical elements of a safety oversight system following USOAP activities, including the resolution of Significant Safety Concerns (SSCs).

The ICAO Regional Director of the Eastern and Southern African Office and Secretary of the AFI Plan, Mr. Meshesha Belayneh, delivered a presentation on the continuation of the AFI Plan for the next triennium. Attendees were informed about the decision of the AFI Plan Steering Committee to expand the Plan to incorporate new technical areas, including air navigation services (ANS), Aerodromes and Ground Aids (AGA) and Aircraft Accident and Incident Investigation (AIG). This expansion will enable the AFI Plan to align with the Abuja safety targets. It was also mentioned that the continuation and expansion of the AFI Plan to cover the technical areas of ANS and AGA will need additional financial support from safety partners to assist African States in addressing safety-related deficiencies and achieving the Abuja targets. Donors interested in contributing to the AFI Plan and supporting African assistance projects were invited to contribute to the ICAO Safety Fund (SAFE). Further information on assistance projects and SAFE can be accessed at the Safety Collaborative Assistance Network (SCAN) at [www.icao.int/safety/scan](http://www.icao.int/safety/scan). ■







## DRIVING PROGRESS ON REGIONAL COOPERATION



On 23 September 2013, in accordance with the measures defined to achieve the objectives of relevant Memoranda of Cooperation (MoCs), the Secretary General of ICAO scheduled a high-level meeting on regional cooperation at ICAO Headquarters, attended by various regional civil aviation bodies (ACAC; AFCAC; AU; ECAC; EU; LACAC); ICAO Directors; and Head of Office, European Commission in Montréal, among others.

The side meeting was in accordance with the MoCs on *Providing a Framework for Enhanced Cooperation*, which were signed in September 2010 at Montréal, Canada with ACAC, AFCAC, AU, ECAC and LACAC, and subsequently with the EU in April/May 2011.

The meeting was convened in order to harmonize and maximize collaboration of intra- and inter-regional activities, with the following main objectives: a) Assembly expectations; b) regional implementation of the five new ICAO Strategic Objectives; c) review of priorities and areas of cooperation in each region;



d) development of the joint work programmes for 2014-2015-2016 triennium; e) collection, access and harmonization of data; f) coordination of the scheduling of regional meetings; and g) establishment of regular cooperative consultation mechanisms.

#### KEY INFORMATION


The MOCs cited above create a framework for greater regional cooperation in the technical and policy aspects of international civil aviation.

- The process includes: improved mechanisms for consultation and cooperation, including electronic information sharing; coordinated programme planning and implementation between ICAO and the regional civil aviation bodies; and joint training and capacity building.
- Collaboration between ICAO and the regional civil aviation bodies/regional organizations has resulted in States working in harmony with respect to operational regulations, requirements and procedures in order to ensure uniform implementation of SARPs for the sake of flight safety and efficiency.
- The ICAO Regional Offices have ensured ICAO's participation in the Assemblies of the regional civil aviation bodies or other relevant high-level meetings of such bodies, with a view to seeking an opportunity to provide input to their work programmes. ICAO continues to encourage participation of the regional civil aviation bodies at relevant ICAO meetings.
- At its 37<sup>th</sup> Session, the Assembly endorsed an ICAO Policy and Framework for Regional Cooperation. The Appendix to Assembly Working Paper (A38-WP/9) contains details of progress made in implementing this Policy.
- Since ICAO does not have sufficient resources dedicated to assist Member States, coordination will need to be strengthened in these areas between ICAO and the regional civil aviation bodies/groups.
- The purpose of the side meeting was to reconfirm that both ICAO and the regional organizations/regional civil aviation bodies continue to share costs and resources related to regional activities with increased involvement from States in the respective regions in order to increase efficiency and avoid duplication of efforts. ■

# SOME REFLECTIONS ON ICAO'S HISTORIC ASSEMBLY ACHIEVEMENTS



United Arab Emirates

 The 38<sup>th</sup> ICAO Assembly dealt with a myriad different regulatory and policy issues of significant importance for the advancement of international civil aviation. Many of these issues were subject to heated debates and, at times, proved extremely difficult. Arguably, climate change ranked as one of the most controversial and intensively discussed topics.

The agreement by Member States to develop a global market-based measure (MBM) plan for international civil aviation represents a major accomplishment. It marks the first-ever agreement by a United Nations specialized agency to develop a global MBM to reduce greenhouse gases (GHGs). Although in essence the agreement is only a commitment to develop the scheme, it is in fact a milestone achievement, if one considers that just months before the Assembly it appeared extremely doubtful that a compromise could be achieved at all. Critics had strong reservations regarding ICAO's ability to deliver.

Clearly, the more constructive approach of some key players brings cautious optimism for the future development of a global MBM for international civil aviation. With the collaborative efforts of industry stakeholders, members of civil society and States, ICAO met the challenge once again. In 2016, the Council will present the results of this work to the 39<sup>th</sup> Session of the ICAO Assembly. The scheme *per se* is expected to be operative only in 2020.

It is undeniable that the road to the global MBM plan for international aviation will not be easy. There are a number of pending and unresolved issues. One of these is the articulation of the principles of Common but Differentiated Responsibility (CBDR) and non-discrimination. ICAO must urgently address how the global MBM will take into account the United Nations Framework Convention on Climate Change's (UNFCCC's) CBDR in a manner that does not conflict with ICAO's long-standing policy of non-discrimination. It is certainly feasible to reconcile the two, which *a priori* appear to contradict each other, but this will require innovative thinking. The task can no longer be postponed.

It is also worth mentioning that the Organization received significant financial support to advance its work on climate change from both the European Union (EU) and the United Nations Environment Programme (UNEP).

Additionally, the 38<sup>th</sup> Session of the Assembly endorsed ICAO's Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP). These will guide ICAO's future work in safety and air navigation issues and are vital for the orderly development of international civil aviation.

The Assembly also made significant strides in the field of aviation security, endorsing the Continuous Monitoring Approach (CMA) to security audits, as well as the Traveller Identification Programme (ICAO TRIP). It became clear from the Assembly that States would like to see a balance between the Organization protecting the travelling public at large through aviation security measures while at the same time placing significant emphasis on facilitation initiatives to expedite and streamline the flow of passengers, crew and cargo. A large number of States spoke about concepts such as risk-management-based prioritization, as well as mutual recognition of aviation security measures, an area where progress at the international level has been slow. The global aviation community can no longer tolerate a patchwork of varying and conflicting security measures. We must resolve these discrepancies.

In addition, the Assembly suggested, among other items, that: 1) States address threats posed by liquids, gels and aerosols through technological solutions; 2) States intensify efforts in security air cargo; and 3) States consider the potential security vulnerability of unmanned aircraft systems.

The Assembly entrusted a number of new tasks to ICAO, including, but not limited to, addressing other threats such as cyber threats and risks to landside, promoting innovation in aviation security, encouraging mutual recognition processes which recognize equivalence in security measures, and a periodic review of the risk context statement. It also requested that, through the Facilitation Panel, the Council revise the Passenger Name Record (PNR) Guidelines of ICAO Doc 9944. A key challenge to carrying out these tasks will be funding.

The Legal Commission applauded the Organization's work in legal affairs. In particular, although there are still a number of issues where consensus has not been achieved, States expressed considerable support for the modernization of the 1963 Tokyo Convention. This process will culminate at the



forthcoming ICAO Diplomatic Conference that will take place from 26 March through 4 April 2014. A new protocol that will amend the 1963 Tokyo Convention is expected to be adopted. Likewise, two key Assembly resolutions were adopted to promote the ratification of both the 1999 Montréal Convention and the 2010 Beijing instruments. The Legal Commission also updated its work programme. Most notably, the Assembly accepted a proposal to examine the legal issues arising from remotely piloted aircraft.


The 38<sup>th</sup> Assembly proved to be a fantastic opportunity to discuss issues relevant to international civil aviation. As usual, States had differing and sometimes conflicting views. Compromise was not always possible but it prevailed most of the time. Historic achievements were made. It is clear that the international aviation community – represented by Member States, industry stakeholders and members of civil society – has once again demonstrated unyielding leadership and a commitment to take the Organization's work to new heights. I have no doubt that this will benefit the international community as a whole. ■

**ABOUT CAPT. AYSHA AL HAMILI**

*Since 2009, she has served as the Permanent Representative to the United Arab Emirates (UAE) to ICAO. She has also acted as Vice-President of the ICAO Council, Chairperson of the Ad Hoc Group on MBMs, and Vice-Chairperson of the Air Transport and Unlawful Interference Committees. Currently, Capt. Al Hamili serves as the Chairperson of the Human Resources Committee.*



# NEW COUNCIL FOR A NEW TRIENNIUM

 The 38<sup>th</sup> Session of the ICAO Assembly elected a new Council on 1 October 2013. The 36-Member ICAO Council is the governing body of the Organization and States are elected to it for a three-year term.

The ICAO Council is a permanent body of the Organization responsible to the Assembly. Assemblies elect new Council Members with the goal of ensuring adequate representation to States of chief importance in air transport, States which make the largest contribution to the provision of facilities for international civil air navigation, and States whose designation will ensure that all major geographic areas of the world are represented on the Council. The Council convenes the Assembly.

## ROLE OF THE COUNCIL

As one of the two governing bodies of ICAO, the Council gives continuing direction to the work of ICAO. In this regard, one of its major duties is to adopt international Standards and Recommended Practices (SARPs) and to incorporate these as Annexes to the Chicago Convention. The Council may also amend existing Annexes as necessary.

The Council also has numerous additional official functions, notably to submit annual reports to the Assembly, carry out the directions of the Assembly, and to discharge the duties and obligations which are laid on it by the *Convention on International Civil Aviation* (Chicago, 1944). One of its main duties is to oversee the finances of ICAO, appointing and defining the duties of the Air Transport Committee, the Committee on Joint Support of Air Navigation Services, the Finance Committee, the Committee on Unlawful Interference, the Technical Co-operation Committee and the Human Resources Committee. It also establishes the terms of reference and work programme of its Committee on Aviation Environmental Protection (CAEP).

Another key function of the Council is to appoint ICAO's Secretary General. It additionally appoints the Members of the Air Navigation Commission and it elects the members of the Edward Warner Award Committee.

At the 2013 38<sup>th</sup> Assembly, the Council elected the following States to the ICAO Council in the three categories used to determine its make-up:

## PART I - STATES OF CHIEF IMPORTANCE IN AIR TRANSPORT

Australia\*, Brazil\*, Canada\*, China\*, France\*, Germany\*, Italy\*, Japan\*, Russian Federation\*, United Kingdom\* and the United States\*.

## PART II - STATES WHICH MAKE THE LARGEST CONTRIBUTION TO THE PROVISION OF FACILITIES FOR INTERNATIONAL CIVIL AIR NAVIGATION

Argentina\*, Egypt\*, India\*, Mexico\*, Nigeria\*, Norway, Portugal, Saudi Arabia\*, Singapore\*, South Africa\*, Spain\* and Venezuela.

## PART III - STATES ENSURING GEOGRAPHIC REPRESENTATION

Bolivia, Burkina Faso\*, Cameroon\*, Chile, Dominican Republic, Kenya, Libya, Malaysia\*, Nicaragua, Poland, Republic of Korea\*, United Arab Emirates\* and United Republic of Tanzania.

*\*Indicates re-election*

Shortly after the conclusion of ICAO's triennial Assemblies, one of the first duties of the newly-formed Council is to elect or re-elect a President for a new three-year term. Dr. Olumuyiwa Benard Aliu of Nigeria has been elected as the new President of the ICAO Council, assuming office on 1 January 2014. This will coincide with the completion of the second term of the outgoing President, Roberto Kobeh González of Mexico.

Mr. Kobeh González first assumed the Council Presidency on 1 August 2006, after having been elected to complete the mandate of Dr. Assad Kotaite who had retired extraordinarily in July of that year. Kobeh was re-elected on 19 November 2007 and again on 15 November 2010, for his second three-year term. Previously he had served for eight years as the Representative of Mexico on the Council.

Knut Magne Skaar, Representative of Norway on the Council of ICAO, Nordic Delegation to ICAO (NORDICAO), commented on recent Assembly accomplishments and the value of participation in the Council. "The 38<sup>th</sup> Assembly had some remarkable results, including GASP, GANP and MBM as the most important and complex achievements. More specifically, in the area of safety, always a priority for this UN body, we achieved a renewal of the global commitment to raise safety levels by endorsing the revised GASP."

"By endorsing the GANP, a framework for global interoperability when introducing new techniques and concepts of air traffic management has been provided. This will confer benefits in all the strategic areas of ICAO such as capacity, safety, efficiency and sustainability," stated Skaar. "In addition, the Assembly decision to develop a global market-based measure (MBM) scheme for international aviation for implementation from 2020 is an ambitious and comprehensive approach toward the sustainability of aviation," he continued. ■



# Ecuador

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aviation training in the Region



"After the recent implementation of the Virtual Air Traffic Control (ATC) Simulator System, Ecuador is now among the Latin American countries with the highest standards in terms of aviation training, ready to take on future challenges in civil aviation."

Fernando Guerrero López – Civil Aviation  
General Director – Ecuador







# AT THE FOREFRONT OF AIR TRAFFIC CONTROL

## VIRTUAL AIR TRAFFIC CONTROL SIMULATOR – A CIVIL AVIATION ACHIEVEMENT IN ECUADOR

The Government of Ecuador, aware that civil aviation is one of the main pillars of economic activities today, has decided to contribute to the development of this mode of transport as no other administration has ever done before.

In recent years, the Civil Aviation General Directorate of Ecuador (DGAC) has not only made significant progress in the areas of aviation administration, regulation, surveillance and control, but has also made the most significant investment in airport infrastructure in the history of the country.

The National Government has allocated more than 500 million dollars to revamp the runways, airport infrastructure, as well as the implementation of air navigation safety equipment and systems: New Monopulse Radar Systems; multilateration; new Radar Display Systems; Air Traffic Control Integration Systems with a civilian radar coverage that reaches over 95% of the national territory; purchase of new aircraft with Navigation and Verification Systems and purchase of new software applications,

making aeronautical information easier to access and more available for the benefit of civil and commercial aviation.

Furthermore, DGAC has achieved international certification levels, which establishes it as one of the institutions at the forefront of operations in the continent. Proof of this is the Trainer Plus quality certificate that is a guarantee of quality in terms of training aviation professionals, as well as the ratification of the Civil Aviation Technical School as Regional Center for Security Training of Aviation OACI-AVSEC and ETAC qualification as training operator.

With the guidance of the International Civil Aviation Organization (ICAO), DGAC purchased a high tech Virtual Air Traffic Control Simulator, that establishes the Civil Aviation Technical School as a leader in Latin America, offering ATC high-tech quality training to fill the growing demand for Air Traffic Controllers' training and improve the position of the Civil Aviation Technical School as a center of excellence.

# Civil Aviation Technical School

In 1966, the Ecuadorian government created the Civil Aviation Technical School (ETAC), in order to train technicians in the Air Traffic and Electronics fields. Since then, it has developed instructional programs for the training and the continuous learning of the service staff of Air Traffic Control, important simulations of air operations using training scenarios, and staff training to deal with emergency situations. This is accompanied by high levels of operator professionalism in accordance with the standards and procedures established by the International Civil Aviation Organization (ICAO).



## Simulator For The Air Traffic Control System

This training tool is a system composed of three simulators: control tower, procedures and monitoring, all of which can be operated independently or integrated. The Integrated System has the ability to simulate Automatic Dependence Surveillance (ADS) information, which will allow the training of future domestic and international air traffic controllers within the Performance Based Navigation (PBN) standards.

The simulator is currently operating full time, and, later this year, 11 ATC courses in all three simulators will be completed. Next year, we expect to offer 27 courses, including recurrent and training programs for Ecuadorian controllers, gaining with this more than 300 trained professionals in the country.



### Republic of Ecuador

<b>Area:</b>	256,370 km <sup>2</sup>
<b>Population:</b>	14,483,499 inhabitants
<b>Main Cities:</b>	Quito, Guayaquil, Cuenca
<b>International Airports:</b>	Mariscal Sucre in Quito José Joaquín de Olmedo in Guayaquil Eloy Alfaro in Manta Cotopaxi in Latacunga
<b>Official Currency:</b>	U.S. Dollar
<b>Official Languages:</b>	Spanish, Quechua
<b>Time zones:</b>	GMT + 5 in the continent GMT + 6 in the Galapagos Islands

# COMPONENTS OF THE VIRTUAL ATC SIMULATOR

## 1. 3D CONTROL TOWER SIMULATION ROOM

Consists of one panoramic visual system of 270° in 3D with which it is possible to see airfield, airdrome and the surrounding environment that includes buildings, doors, ramps, taxiways, runways and all types of vehicles and aircraft.

It is also possible to simulate all types of weather conditions, including cloudy, rainy, snowy, stormy and windy environments.

It has three positions:

- **Aerodrome Control:** This position provides control over all the aircraft flying around the airport and those using the runway, whether landing or taking off.
- **Surface Control:** This position provides control over all the aircraft moving on airport taxiways and establishes communications with those on the ramp and parking areas.
- **Authorizations Control:** This position provides ATC authorizations to aircraft and coordinates all the airport facilities that require authorizations.

The system can also be configured using voice recognition for the execution of instructions.



## 2. PSEUDO-PILOTS ROOM IN CONTROL TOWER

This is a tool used to perform aircraft and vehicle movements, controlling the complexity of the exercise

This unit contains the following:

- One (1) supervisory position that allows the instructor to make any dynamic changes while running the exercise; therefore changing the weather and the progress of flights by either adding or removing aircraft, if needed. Also, any of the operating frequencies in use can be heard.
- Three (3) pseudo-pilot positions, that virtually operate the aircraft. They have all the capabilities required to perform all kinds of operations, both on land and in air.

## 3. RADAR SURVEILLANCE CONTROL SIMULATION ROOM

There are three (3) Surveillance Control positions, each one consisting of two positions as well as: an “executive” controller position and another “planner” controller position with their respective communications and traffic display screens for the applicable area or sector and flight plans. These positions have all the necessary capabilities to perform both approach control in the terminal area and surveillance control of the area, according to any training needs. It is important to note that the system has the capacity to simulate ADS, which entails simulating satellite positioning of aircraft, technology promoted by ICAO in areas where there is no radar coverage.





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## 4. PSEUDO-PILOTS RADAR SURVEILLANCE SIMULATION CONTROL

There is a pseudo-pilots room with three positions, one for each command position, where the virtual command airplane crew studies and executes all the maneuvers required by the instructions of the controllers. This room also contains the supervisor position for the instructor who controls the development of the exercise. It is important to highlight the ability to simulate all types of RNAV procedures for training purposes.

This unit contains the following:

- One (1) supervisor position that allows the instructor to control the entire development from start-up making dynamic changes in all exercises, like changing the weather and the progress of the flights either by adding or removing aircraft, as needed. It also lets the supervisor listen to any operating frequencies in use and stop, repeat or restart any given exercise.
- Three (3) pseudo-pilot positions which have all the capabilities to perform all types of maneuvers during the flight transfer to other sectors, and to simulate all kinds of contingencies and emergencies requested by the instructor.

## 5. SIMULATION CONTROL ROOM BY PROCEDURES

This simulator is unique and allows operators to be prepared to turn over control in those areas without radar coverage, or to be prepared to deal with a monitoring system failure.

It has three positions that can be used to control or approach an area, or if needed, it can also offer an integrated approach of both with an assistant position for each.

The system offers an app that can design any needed format and also has a strip printer.

It has the following positions:

- Assistant Position: with its own communications and flight plan screen display.
- Executive Control Position: with a bay to locate and order flight progress strips, and with enough capacity for multiple reporting points. It also has all the necessary capabilities to perform control by procedures, area or approach, being sufficiently flexible and configurable according to the training needs required for the course.

## 6. PSEUDO-PILOTS ROOM FOR CONTROL SIMULATION BY PROCEDURES



The simulator by procedures has a room for pseudo-pilots with three positions, plus a supervisory position for the instructor. It displays the following positions:

- One (1) supervisory position: It allows the instructor to control the entire development of the exercise at his discretion. Also, the instructor may vary weather conditions, modify flight progress by adding aircraft or removing them, stop an exercise, replay or restart it. It also allows the instructor to listen to any of the operating frequencies in use.
- Three (3) pseudo-pilot positions that have full capacities to perform all types of flight maneuvers, transfers to other sectors, and simulate any contingencies and emergencies requested by the instructor.

## 7. DATABASE MANAGEMENT

- This application allows modifying, creating and copying databases determining all the characteristics of the scenario to be simulated such as: restricted area control sectors; airways; approach and departure procedures; area navigation (route); definition of frequencies; control positions; weather patterns; aircraft performance, etc. It also allows for simulation of satellite data, a new technology that will complement radar systems providing the display of data links with a pilot controller (CPDLC).
- The 3D control tower virtual simulator can be configured to display any airport infrastructure desired, in addition to the design of any type of aircraft.
- The Air Traffic Control Simulator System of Ecuador provides a unique opportunity to meet urgent training needs for a new generation of air traffic controllers in accordance with the standards set out by the International Civil Aviation Organization.





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# COURSES OFFERED IN ATC SIMULATOR: (TABLES)

- Approach Control by Surveillance and Area Control by Surveillance Course: Ability to design and simulate any approach scenario (CTR or TMA) with all its operational characteristics, simulating satellite information and all kinds of weather conditions and system failures.

<p><b>APPROACH CONTROL BY SURVEILLANCE COURSE</b>          DURATION: 7 WEEKS          TOTAL HOURS: 280          MAXIMUM NUMBER OF STUDENTS: 12</p>
<p><b>RECURRENT APPROACH CONTROL BY SURVEILLANCE COURSE</b>          DURATION: 2 WEEKS          TOTAL HOURS: 80          MAXIMUM NUMBER OF STUDENTS: 12</p>
<p><b>AREA CONTROL BY SURVEILLANCE COURSE</b>          DURATION: 7 WEEKS          TOTAL HOURS: 280          MAXIMUM NUMBER OF STUDENTS: 12</p>
<p><b>RECURRENT AREA CONTROL BY SURVEILLANCE COURSE</b>          DURATION: 2 WEEKS          TOTAL HOURS: 80          MAXIMUM NUMBER OF STUDENTS: 12</p>

- Approach Control by Procedures and Area Control by Procedures Course: Ability to design and simulate any procedures control scenario, approach control and/or area control by simulating all kinds of weather conditions and system failures; simulation strips, communications, adjacent sectors, coordination.

<p><b>APPROACH CONTROL BY PROCEDURES COURSE</b>          DURATION: 7 WEEKS          TOTAL HOURS: 280          MAXIMUM NUMBER OF STUDENTS: 12</p>
<p><b>RECURRENT APPROACH CONTROL BY PROCEDURES COURSE</b>          DURATION: 2 WEEKS          TOTAL HOURS: 80          MAXIMUM NUMBER OF STUDENTS: 12</p>
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<p><b>RECURRENT APPROACH CONTROL BY PROCEDURES COURSE</b>          DURATION: 2 WEEKS          TOTAL HOURS: 80          MAXIMUM NUMBER OF STUDENTS: 12</p>

- Aerodrome Control 270° Simulator: Students in this course must have met as a requirement the prior theoretical stage that includes basic skills needed to become an Air Traffic Controller.

<p><b>APPROACH CONTROL BY PROCEDURES COURSE</b>          DURATION: 7 WEEKS          TOTAL HOURS: 280          MAXIMUM NUMBER OF STUDENTS: 12</p>
<p><b>RECURRENT APPROACH CONTROL BY PROCEDURES COURSE</b>          DURATION: 2 WEEKS          TOTAL HOURS: 80          MAXIMUM NUMBER OF STUDENTS: 12</p>

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## Enhancing MET data integration supporting optimized operations

The 2014 Meteorology Divisional Meeting will provide a global forum to address existing and emerging issues in aeronautical meteorological service provision. The meeting will develop recommendations for provisions that are aligned with the aviation system block upgrade methodology contained in the revised ICAO Global Air Navigation Plan (GANP), such as the integration of meteorological information into the future

system-wide information management environment supporting global air traffic management. The event is essential for providers and users of aeronautical MET information, products and services, as well as other aviation professionals seeking to optimize aviation safety and efficiency.


For more information, please contact [metdiv14@icao.int](mailto:metdiv14@icao.int) or visit [www.icao.int/meetings/metdiv14](http://www.icao.int/meetings/metdiv14).



ICAO

CAPACITY & EFFICIENCY

# SECOND SAFETY PARTNERSHIP MEETING (SPM/2)

 The second Safety Partnership Meeting (SPM/2) was held at ICAO Headquarters in Montréal, Canada, on 23 September 2013, as a follow-up to the first meeting held in November 2012, where it was agreed between ICAO and its safety partners to hold a meeting twice a year during major events.

46 participants attended the meeting representing 24 States, 10 international organizations and 3 aircraft manufacturers.

The Director of the Air Navigation Bureau (D/ANB) of ICAO, Nancy Graham, opened the event, highlighting that the objective of the meeting was to promote the sharing of information on global assistance activities, experiences and challenges faced, strengthening strategic partnerships on aviation safety assistance with key aviation stakeholders through close collaboration, cost-effectiveness, operational benefits and better results of assistance efforts.

D/ANB chaired the meeting, supported by the Deputy Director, Safety Management and Monitoring (DD/SMM), Mohamed Elamiri, and the new Chief of the Implementation Support and Development - Safety (C/ISD-SAF) Section, Michiel Vreedenburgh. Participants were to review and identify priorities for the assistance Programme.

## STATE OF GLOBAL AVIATION SAFETY

ICAO presented safety indicators related to the state of global aviation safety being used in all ICAO regions as drivers to improve safety outcomes through coordinated monitoring, analysis standardization and implementation initiatives.

## GASP AND COMMON PRIORITIES

The meeting received information on how the Global Aviation Safety Plan (GASP) objectives are being addressed with the varying needs of States, stressing the implementation of effective safety oversight systems as a priority and a prerequisite to the implementation of State Safety Programmes (SSPs) in the near term (2017), followed by the full implementation of the ICAO SSP framework by States in the mid-term (2022) and the implementation of predictive risk analysis in the long term to support future air navigation systems.

## EVOLUTION AND PLANS FOR RASGS

D/ANB informed that most Regional Aviation Safety Groups (RASGs) have established regional priorities and targets, with two of them in the final process of adoption. The priorities,

metrics, targets and results will be available through the new ICAO regional performance dashboards from March 2014. Shared information and safety intelligence will integrate data from multiple sources and aviation domains to provide a holistic, multi-dimensional view of safety.

## PRESENTATION ON THE NEW SCAN WEBSITE

D/ANB presented the new ICAO SCAN website ([www.icao.int/safety/scan](http://www.icao.int/safety/scan)) to the Meeting, as a sole source of information regarding technical assistance and cooperation projects. The network allows better coordination of aviation safety projects, displaying comprehensive information in order to better focus resources on prioritized needs, as well as to reduce duplication of efforts in the various ICAO regions.

## WHAT CAN WE COLLABORATE ON TOGETHER?

D/ANB delivered information on today's safety priorities and on the common efforts deployed by ICAO together with its safety partners to resolve complex problems related to the main causes of accidents and incidents. Runway Safety (RS), Controlled Flight into Terrain (CFIT) and Loss of Control In-Flight (LOC-I) were reminded as global priorities and RS was cited as an example of how a coordinated response is being deployed through safety products such as regional seminars, workshops, surveys and handbooks, as a result of safety enhancement initiatives and detailed implementation plans proposed and coordinated through the RASGs. Updated and detailed information was provided on specific achievements at various regional and State levels such as RASGs, regional safety oversight organizations, successful State assistance, Cooperative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAPs) and the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan).

The partners shared their experiences and views about proposed ideas and solutions to address implementation problems and to achieve better results. The following is a consolidated list of conclusions from the main areas of interest emphasized by the participants.

### 1. STANDARDIZATION

There is a need to align audit data from a number of sources [ICAO, the Federal Aviation Administration (FAA), the International Air Transport Association (IATA), the European Aviation Safety Agency (EASA) and the Airports Council International (ACI), etc.], in order to avoid duplication of efforts when assessing the level of safety in a State.



## 2. COLLABORATION

The collaboration between international organizations such as IATA, ACI, CANSO and the Flight Safety Foundation (FSF) regarding their current programmes on RS, LOC-I and CFIT, should be enhanced to include training, exchange of safety information and emerging initiatives. The following points were also discussed:

- Stakeholder's interests and priorities, properly coordinated through ICAO, will effectively lead to positive results. This presents an opportunity to create momentum based on the partner's will to improve the assistance to States in aviation safety.
- Priorities and lessons learned from well-established programmes such as the FAA Aviation Safety Information Analysis and Sharing (ASIAS) System and the Commercial Aviation Safety Team (CAST) should be shared among regional safety groups in order to save time and effort.
- ICAO should keep reviewing and identifying contributions and capabilities of various partners in order to increase their contribution to agreed safety priorities.
- International Safety Programmes from the FAA and EASA are working closely on sharing information and increasing transparency. Interested parties (e.g., ICAO, EASA) can now join an FAA-IASA assessment to learn from that experience.

## 3. RESOURCES

ICAO should identify common priorities with partners to direct the assistance needed from donors to States and determine the right opportunities for investment that can translate into effective results. Only the optimal combination of needs and skills will lead to successful and efficient assistance interventions.

For assistance projects to succeed, governments at all levels have to show high motivation and political will before obtaining support and funds from safety partners and donors.

The partners should maintain their focus on projects that can lead to concrete results. By first identifying needs, establishing priorities and targets, and then linking the partners with the appropriate assistance capabilities available, the overall contributions will be more effective in resolving States' safety issues.

## 4. SAFETY INFORMATION EXCHANGE

Seventy per cent of world traffic is shared among 15 States, most of which do not rely on updated legislation to properly protect and share safety data.

The safety partners should support the improvement of States' legal framework which includes SIP Task Force's best practices on source protection and facilitation of data-sharing.

Developing confidence among all industry players regarding sharing information in a safe and protected environment is an important common global challenge. Sensitive data could be de-identified and hosted in ICAO databases, in a secure environment under UN protection.



States would greatly benefit if safety information were made available by ICAO.

The principal donors and collaborators in Safety Assistance Programmes coordinated with ICAO were presented in order to promote their efforts and to encourage other potential partners to become involved in new projects.

In summary, the safety partners that participated in the meeting agreed upon the following prerequisites for the provision of collaborative assistance to States:


- Good governance and political will for implementation
- Aviation should be a priority in national development strategy and plans
- Prioritized efforts founded on a safety risk-based approach and predictive analyses
- Safety information sharing and joint missions
- Collaboration to avoid duplication
- Contributors of input to assistance provided should be those in the best position to do so effectively
- High probability of successful results and sustainability
- Beneficiaries are all stakeholders in the system: regulators, service providers and users.

The meeting discussed a proposal to establish a broad-based Steering Committee for the top 10 safety partners to provide global strategic direction to and harmonization for regions and to prioritize collaborative initiatives to provide assistance for safety improvements, similar to a Global Aviation Safety Team. This group would also provide guidance for the potential global "Aviation Safety Information Analysis and Sharing System" and would assist with preparations for the High-Level Safety Conference to be held in January 2015.

In conclusion, D/ANB acknowledged and thanked the participants for their interest in and growing support of the safety partnership initiative which has shown tangible results since the SPM/1 meeting held in 2012.

The next meeting (SPM/3) is scheduled to be held at ICAO Headquarters during the week of 19 May 2014, in conjunction with the Loss of Control In-Flight Symposium. ■

# SHOWCASE OF ELECTRONIC TOOLS (SET13)

 In recent years, there has been a significant increase in the number of electronic tools available to aviation regulators to assist them in performing their responsibilities as part of the international civil aviation community. Many of these tools have been developed and/or used by Member States, some of which have shared those tools with other States. The trend of developing, using and sharing electronic tools is expected to grow.

This ICAO Showcase provided insight into these developments through presentations and demonstrations of electronic tools by Member States and ICAO. In addition, it presented a networking and knowledge-sharing opportunity through which participants were able to share best practices and lessons learned.

## REGULATORY TOOLS

**Objective:** To demonstrate how automation is already assisting regulators with their obligations. Presenters demonstrated existing tools used by ICAO member States to carry out their various oversight functions.

## REPORTING AND ANALYTIC TOOLS

**Objective:** To get attendees excited about some aviation regulatory applications that are used to implement the data-heavy components of new analytic methods required of modern aviation regulatory approaches. This includes such issues ranging from risk analysis in support of safety management, to cost benefit business case studies to ensure the appropriate selection of new technologies.

## DATA EXCHANGE MODEL AND COLLABORATION

**Objective:** To introduce the open-format approach to data required by regulators for international civil aviation purposes and to demonstrate the power of data exchange. ■



# Identify the trends. Optimize your planning.



The ICAO Global Air Transport Outlook (GATO) to 2030 summarizes the latest and most expansive passenger and freight traffic forecasts ever produced by ICAO. Designed to help regulators and the aviation industry respond to evolving passenger and shipper needs over the next 20 years, the publication also includes forecasts of corresponding aircraft movements and extended global

forecasts of passenger and freight traffic to 2040, in support of greenhouse gas emissions analyses.

This unique document benefits from an expanded system of routes and more sophisticated econometric techniques, as well as the worldwide expertise of ICAO and the extensive data provided by its Member States.



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# 4<sup>th</sup> ICAO/MCGILL PRE-ASSEMBLY SYMPOSIUM

✈ ICAO and McGill University's Institute of Air & Space Law cooperated for the fourth ICAO/McGill Pre-Assembly Symposium, from 21 to 22 September 2013, at ICAO Headquarters. This Symposium addressed key issues identified by ICAO and McGill University in the air transport economics and navigation fields at the operational, management and policy levels.

The principal objective of the Symposium was to provide State delegates, industry representatives and other air transport stakeholders with a preparatory forum for the 38<sup>th</sup> Session of the ICAO Assembly that commenced on 24 September 2013.



High-level speakers from ICAO, industry and McGill University's Institute of Air & Space Law convened at the fourth ICAO/McGill Pre-Assembly Symposium in September 2013. Pictured from left to right are: ICAO Air Transport Bureau Director Boubacar Djibo (Moderator), Pacific Asia Travel Association (PATA) CEO Martin Craigs, CANSO Director General Jeff Poole, TIACA Board Chairman Oliver Evans, ACI Europe Director General Olivier Jankovec, and IATA Director General Tony Tyler.



With the newest technologies and profitability as important guideposts, the Symposium looked at innovative ways to enhance air transport connectivity.

Top-level speakers addressed key issues related to air transport's sustainable development in interactive panel discussions. With the newest technologies and profitability as important guideposts, the Symposium looked at innovative ways to enhance air transport connectivity, by considering the following questions:

- How are air passengers and freight impacted by impediments to operational efficiency?
- How do we enhance seamless connectivity between air transport and other transportation modes?
- How can we secure the billion dollars needed to finance infrastructure and air navigation systems?
- How do we ensure that the inherent advantages of air transport (i.e. speed) are not eroded by regulatory, technological, procedural and structural impediments to efficiency?
- How well does existing and future technology facilitate the flow of passengers, air freight and air traffic management?
- Do security, safety and consumer protection laws and regulations serve the public well?
- What are the tools, policies and best practices that will foster regulatory harmonization across boundaries?
- How can ICAO improve cooperation at the global level? ■

# CLIMATE CHANGE: A SUMMARY OF SCIENCE FINDINGS FROM IPCC AR5



**ABOUT DONALD J. WUEBBLES**  
He is the Harry E. Preble Professor of Atmospheric Science at the University of Illinois. He is a professor in the Department of Atmospheric Sciences, as well as an affiliate professor in the Departments of Civil and Environmental Engineering and in Electrical and Computer Engineering. Dr. Wuebbles is Coordinating Lead Author for Chapter 1 of the Assessment.

## INTRODUCTION

The Intergovernmental Panel on Climate Change (IPCC) was set up in 1988 by the World Meteorological Organization and the United Nations Environment Programme to provide governments with a clear view of the current state of knowledge about the science of climate change, potential impacts, and options for adaptation and mitigation through regular assessments of the most recent information published in the scientific, technical and socio-economic literature worldwide. The Working Group I (WGI) contribution to the IPCC Fifth Assessment Report (AR5) released on 27 September assesses the current state of the physical sciences with respect to climate change (see [www.climatechange2103.org](http://www.climatechange2103.org)). This assessment by 259 top scientists from around the world evaluated the state of the science and the changes in understanding of climate change over the six years since the last assessment. The findings further amplify those from the earlier assessments that the Earth's climate is changing, that it is changing rapidly, and that it is primarily changing because of human activities.

The WGI assessment is comprised of about 2500 pages of text (14 chapters and 2 appendices) and draws upon millions of observations and over 2 million gigabytes of numerical data from climate model simulations. Many independent scientific analyses are considered in the assessment, from observations of the climate system, paleoclimate archives, theoretical studies of climate processes and simulations using climate models. Over 9200 peer-reviewed scientific publications are cited, three quarters of which have been published since 2007. The multiple external reviews resulted in 54,677 comments from 1089 experts who helped further refine the report.

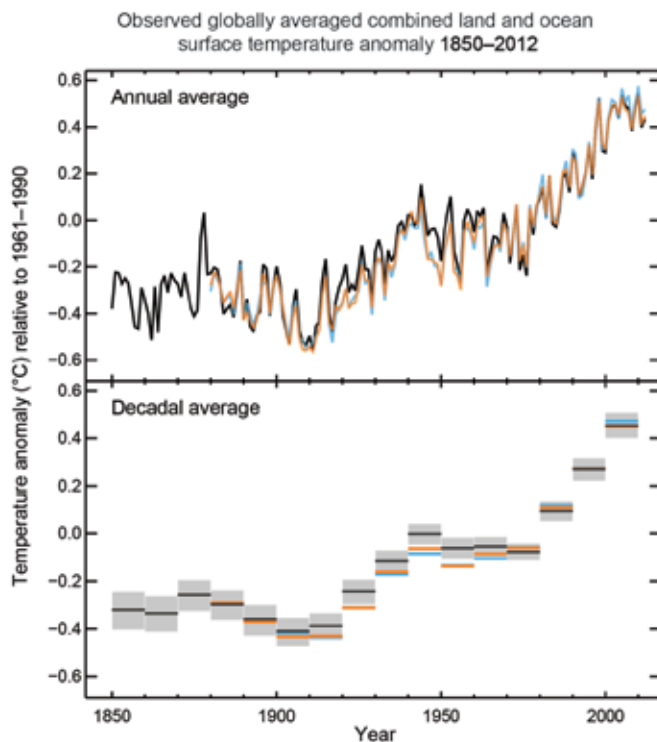
The assessment not only evaluates the changes in climate that are occurring now and how those changes relate to past changes in climate, but also considers how the Earth's climate might be affected by human activities in the future. Analyses of the projections of climate change to 2100 and beyond from over 30 different climate models are based on a new set of four scenarios (called Representative Concentration Pathways or RCPs) for future concentrations and emissions of the relevant gases and particles affecting climate, spanning a wide range of possible futures from continued heavy use of fossil fuels (RCP8.5) to significant reductions in their use (RCP2.6).



## SUMMARY OF FINDINGS

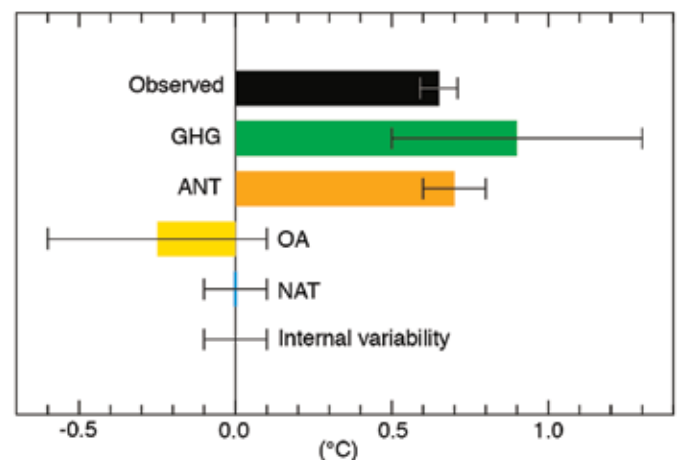
Some of the key findings from the assessment are summarized below. The degree of certainty in key findings in this assessment is based on the author teams' evaluations of underlying scientific understanding and is expressed as a qualitative level of confidence (from *very low* to *very high*) and, when possible, probabilistically with a quantified likelihood (from *exceptionally unlikely* to *virtually certain*). For the findings presented below: *virtually certain* means a 99-100% probability; *extremely likely*, 95-100%; *likely*, 66-100%; and *more likely than not*, 50-100%. These measures of uncertainty are based on statistical analysis of observations or model results, and expert judgment.

- Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.
- Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850 (see **Figure 1**). In the Northern Hemisphere, 1983–2012 was *likely* the warmest 30-year period of the last 1400 years (*medium confidence*).



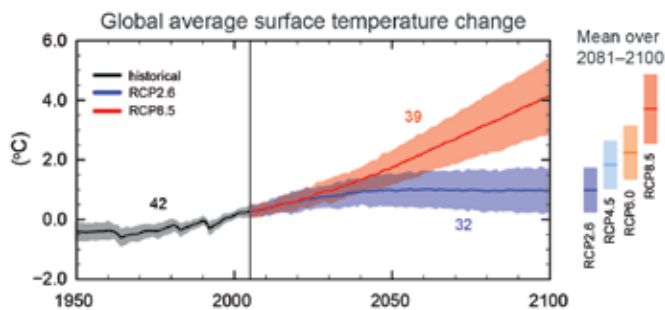
**Figure 1:** Observed global mean combined land and ocean surface temperature anomalies, from 1850 to 2012 from three data sets (blue from NASA GISS, red from NOAA NCDC and black from UK Hadley Centre). Top panel: Annual mean values, bottom panel: decadal mean values including the estimate of uncertainty for the UK Hadley Centre (HadCRUT4) dataset (black). Anomalies are relative to the mean of 1961-1990.

- Ocean warming dominates the increase in energy stored in the climate system, accounting for more than 90% of the energy accumulated between 1971 and 2010 (*high confidence*). It is *virtually certain* that the upper ocean (0–700 m) warmed from 1971 to 2010, and it *likely* warmed between the 1870s and 1971.
- Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent (*high confidence*).
- The rate of sea level rise since the mid-19<sup>th</sup> century has been larger than the mean rate during the previous two millennia (*high confidence*). Over the period 1901 to 2010, global mean sea level rose by 0.19 [0.17 to 0.21] m.
- The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification.
- Total radiative forcing is positive, and has led to an uptake of energy by the climate system. The largest contribution to total radiative forcing is caused by the increase in the atmospheric concentration of CO<sub>2</sub> since 1750.
- Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming and understanding of the climate system (see **Figure 2**).



**Figure 2:** Assessed likely ranges (whiskers) and their midpoints (bars) for warming trends over the 1951-2010 period due to well-mixed greenhouse gases (GHG, including carbon dioxide, methane, nitrous oxide, etc.), anthropogenic forcings (ANT, total forcing due to human-related sources that accounts for interactions at each location, thus the reduced whiskers), anthropogenic forcings other than well-mixed greenhouse gases (OA, including other gases and particles), natural forcings (NAT, including solar flux variations and volcanic eruptions) and internal variability. The trend in the temperature observations (based on the evaluation from the U.K. Hadley Centre, HadCRUT4) is shown in black with its 5 to 95% uncertainty range due only to observational uncertainty in this record.

- Climate models have improved since the last assessment. Models reproduce observed continental-scale surface temperature patterns and trends over many decades, including the more rapid warming since the mid-20<sup>th</sup> century and the cooling immediately following large volcanic eruptions (*very high confidence*).
- Observational and model studies of temperature change, climate feedbacks and changes in the Earth's energy budget together provide confidence in the magnitude of global warming in response to past and future forcing.
- Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since 2007. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20<sup>th</sup> century.
- Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.
- Global surface temperature change for the end of the 21<sup>st</sup> century is *likely* to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except the lowest RCP2.6 scenario (see **Figure 3**). It is *likely* to exceed 2°C for RCP6.0 and RCP8.5, and *more likely than not* to exceed 2°C for RCP4.5. Warming will continue beyond 2100 under all RCP scenarios except RCP2.6. Warming will continue to exhibit interannual-to-decadal variability and will not be regionally uniform.



**Figure 3:** Multi-model simulated time series from 1950 to 2100 for the change in global annual mean surface temperature relative to 1866–2005. The mean and associated uncertainties averaged over 2081–2100 are given for all of the RCP scenarios as colored vertical bars. The numbers of models used to calculate the multi-model mean is indicated.

- Changes in the global water cycle in response to the warming over the 21<sup>st</sup> century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions.
- The global ocean will continue to warm during the 21<sup>st</sup> century. Heat will penetrate from the surface to the deep ocean and affect ocean circulation.

Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

- It is *very likely* that the Arctic sea ice cover will continue to shrink and thin and that Northern Hemisphere spring snow cover will decrease during the 21<sup>st</sup> century as global mean surface temperature rises. Global glacier volume will further decrease.
- Global mean sea level will continue to rise during the 21<sup>st</sup> century. Under all RCP scenarios, the rate of sea level rise will *very likely* exceed that observed during 1971 to 2010 due to increased ocean warming and increased loss of mass from glaciers and ice sheets.

## GEF AND EU SUPPORT ICAO CAPACITY-BUILDING PROGRAMME TO ASSIST STATES WITH ACTION PLANS FOR EMISSIONS REDUCTION

The 38<sup>th</sup> session of the ICAO Assembly considered global solutions to address emissions from international aviation. The Assembly made progress on all five of its 2014-2016 strategic objectives, including reaching agreement to develop a global market-based measure (MBM) for international aviation.

The Assembly also agreed on a comprehensive strategy on alternative fuels, operations and technology, and a capacity-building work programme to assist States in developing and implementing action plans to reduce carbon dioxide (CO<sub>2</sub>) emissions from international aviation. The Global Environment Facility (GEF) and the European Union announced financial assistance for States to develop and implement their action plans aiming at reducing emissions from aviation, earmarking more than \$8 million.

This capacity-building work programme will identify the implementation needs of States relating to the reduction of international aviation CO<sub>2</sub> emissions, and will support them in the enhancement of national capacities for lowering these emissions.

- Climate change will affect carbon cycle processes in a way that will exacerbate the increase of CO<sub>2</sub> in the atmosphere (*high confidence*). Further uptake of carbon by the ocean will increase ocean acidification.
- Cumulative emissions of CO<sub>2</sub> largely determine global mean surface warming by the late 21<sup>st</sup> century and beyond. Most aspects of climate change will persist for many centuries even if emissions of CO<sub>2</sub> are stopped. This represents a substantial multi-century climate change commitment created by past, present and future emissions of CO<sub>2</sub>.

### IPCC FINDINGS RELATED TO AVIATION

Radiative forcing (RF) has been the most commonly used metric to compare different climate change effects, including analyses of the effects of aviation on climate. RF is the net change in the energy balance of the Earth system due to some imposed perturbation. It is usually expressed in watts per square meter (Wm<sup>-2</sup>) averaged over a particular period of time and quantifies the energy imbalance that occurs when the imposed change takes place. RF provides a simple quantitative basis for comparing some aspects of the potential climate response to different imposed agents,

especially global mean temperature. The IPCC assessment provides an evaluation of the radiative forcing on climate for the period from 1750-2011. For most of the effects from aviation, including CO<sub>2</sub> (aviation accounts for about 2% of the current annual increase in CO<sub>2</sub>), the effects of aviation are only considered within the context of the total observed change in the quantity. The only component from aviation explicitly included is the RF for contrails, which is given as 0.01 Wm<sup>-2</sup> (comparable to prior evaluations of 0.007-0.012 Wm<sup>-2</sup>). In contrast, the RF over the entire time period for the well-mixed greenhouse gases (e.g., CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O) is 2.83 Wm<sup>-2</sup>.

The assessment also considers the resulting temperature effect for emissions for a year from a number of different energy use and transportation sectors after either 20- or 100-year time periods. Based on emissions from 2008, the energy and industrial sectors have by far the largest effects on temperature after 100 years. Household fossil fuel, biomass burning and on-road transportation are also relatively large contributors to the warming. Those same sectors, along with sectors that emit large amounts of methane (animal husbandry, waste/landfills and agriculture), are most important over shorter time horizons (20 years). All of these are much larger contributors than the effects from aviation over either the 20- or 100-year time scales.

The IPCC WGI assessment shows that the many indicators of a changing climate and the projections of further changes over the coming decades present major challenges for humanity. These findings provide a firm foundation for the assessment of Impacts, Adaptation, and Vulnerability by WGII to be released in March 2014 and the assessment of Mitigation of Climate Change by WGIII to be released in April 2015. ■

ICAO has a long-held collaboration with the IPCC. This includes the IPCC Special Report on Aviation and the Global Atmosphere in 1999, the first sectoral report from IPCC providing consolidated scientific information on aviation's climate impact, briefing policymakers on the challenges ahead and highlighting key mitigation options. ICAO also gave substantial input in, and actively supported, the IPCC in the development of the Guidelines for National Greenhouse Gas (GHG) Inventories by providing the necessary expertise for the development and refinement of a methodology for the calculation of aviation emissions. Additionally, ICAO has collaborated with the IPCC on the assessment reports on climate change, in particular the Fourth Assessment Report (AR4) and on the preparation of the new Fifth Assessment Report (AR5).



# Partnering on e-Learning



**Air Transport Statistics - ICAO**  
(Introductory)

In the first Air Transport Statistics e-learning course ICAO-CAE will provide basic training on international air transport statistics focusing on standard terminology used, how data is collected and what it represents. Participants will be introduced to some of the most important data series that ICAO collects and learn where the data originates, how the different data series may relate to each other and how to verify that the data submitted conforms to the instructions and definitions pertaining to each data series presented.

This course fills a vacuum which has been created over the last decade as some of the international and regional organizations that once provided basic guidance material on air transport statistics to the industry have ceased to do so.

**Important:** The support document required for this course is:

*The Companion Document to the Air Transport Statistics Course*

This must be purchased from ICAO before subscribing.



**Air Transport Economics and Regulation - ICAO**  
(Introductory)

Air transport development can sometimes diverge with policy objectives and become a highly contentious topic. This course is designed to provide a clear foundation of the underlining principles of airline and airport economics as well as to address aviation regulatory and policy issues. It is a useful introductory course for junior aviation experts in their early career development in the air transport industry or government regulatory bodies. Professionals working in related fields such as finance, economic development or tourism will find this course helpful in their dealings with airline/airport issues.

**Important:** The support documents required for this course are:

*Doc 9626 - Manual on the Regulation of International Air Transport* and

*Doc 9587 - Policy and Guidance Material on the Economic Regulation of International Air Transport*

These must be purchased from ICAO before subscribing.



**Forecasting for Air Transportation - ICAO**  
(Introductory)

The air transport world faces major challenges in addressing high fuel prices while catering for demand which is showing greater volatility than in the past. Airports increasingly present a major infrastructure constraint to meeting the demand for air travel and many are already severely congested while the airline industry remains fiercely competitive. A thorough understanding of the nature of demand coupled with the knowledge of how to effectively manage capacity will be essential for success in this fast-changing commercial environment. Measures to expand airport capacity will be considered in relation to both terminals and runways and the interaction with surface transport. This course aims to address key demand and supply issues, assess forecasting methodologies and discuss future strategies.

**Important:**

The pre-requisite for this course is the:

*Air Transport Statistics Course*

The support document required for this course is:

*Doc 8991 - Manual on Air Traffic Forecasting*

This must be purchased from ICAO before subscribing.

# ASSAD KOTAITE GRADUATE AND POSTDOCTORAL FELLOWSHIP FUND



## ABOUT BASSAM MALIK

*He is the most recent recipient of the Assad Kotaite Graduate and Postdoctoral Fellowship Fund scholarship whose objective is to advance the safety and development of the civil aviation system.*



In my native country, Pakistan, we all grew up singing “London Bridge is falling down”. However, I was always confused about whether it should be “built up with wood and clay, bricks and mortar or iron and steel. I never knew who my “fair lady” was going to be. But in the bat of an eye lash it all started making sense when the ICAO Assad Kotaite Graduate and Postdoctoral Fellowship Fund selected me. I found my fair lady and realized the reconstruction was to be done using metal; and it was not the bridge, rather the cockpit and the fuselage that were to seal my fate. And believe you me this realization was not a “spoiler” by any means. Having always been mesmerized by the well-oiled machine which is the airline industry, I found a way to my passion via a profession, for which I am greatly thankful.

My dream of becoming a pilot had to be abandoned due to financial difficulties faced by my family. However, as the famous saying goes, if one follows something from the core of one’s heart, the universe conspires in one’s favor. I completed my undergraduate studies in economics and finance, but my love for aviation continued. The result was that I ended up writing a research paper entitled “Impact Assessment of Air Transport on the Economic Activity of Pakistan”. This paper was selected to be presented at the Air Transport Research Society Conference based in British Columbia, which is among the most esteemed academic aviation conferences worldwide. While researching local aviation issues I developed a passion to explore the Pakistani aviation industry in the hope that one day I can assist in fostering a turnaround in the local industry. We all need to create an equal playing field where global carriers can benefit from the untapped growth of emerging markets by making their policy frameworks increasingly market friendly.

As Pakistan has a population of roughly 170 million, with a large number of citizens using air transportation for domestic as well as international routes, it is imperative that air travel is economic, safe and comfortable. My goal is to gain expert knowledge from a leading institution, which can then be utilized to facilitate the much needed reforms to the aviation industry in my country. I am confident that the skill set I acquire will equip me in line with my career aspirations of becoming a leader in the field of aviation, positioning myself in a role that will allow me to continually grow. I hope to assume increasingly greater responsibilities involving key decision-making processes aimed at improving choice and increasing value for aviation consumers now and in the future by promoting competition in the marketplace, and contributing to consumers’ ability to make informed decisions, in addition to protecting their interests.

I am certain that after obtaining a degree from a well-regarded institution such as University of Westminster in London, U.K., as I progress I will be ensuring a sound future not only for myself but also for my country. Funding through the ICAO Assad Kotaite Graduate and Postdoctoral Fellowship has enabled me to take the first step in achieving my goals. I will make every effort to prove myself and to exemplify the high standards this scholarship represents.

Bearing the name of Dr. Assad Kotaite, whose accomplishments surely make him one of the most outstanding aviation figures of his time, this scholarship serves the laudable cause of developing high-level professionals within the industry. I am grateful for the efforts of ICAO in promoting sustainable civil aviation and providing me a once in a lifetime opportunity to do my part. ■



## Where Security and Technology Meet

Based on the theme of **Innovation for the Enhancement of Aviation Security**, the first-ever Symposium on Innovation in Aviation Security will help States, industry, academic researchers and other AVSEC professionals explore how technology, tools and equipment can help States and industry meet both existing and future aviation security challenges.

The proposed three-day Symposium will feature presentations and panels on themes such as: optimizing technology; achieving a better balance between security and facilitation; accelerating the

transfer of innovative methods to less developed States; optimizing partnerships between State authorities and manufacturers; creating and applying knowledge through innovation; promoting research and development; and empowering people and firms toward innovation.

If you would like to take advantage of this invaluable networking and learning opportunity and help set the course for the newest security and facilitation solutions, please visit the ICAO Meetings website at [www.icao.int/meetings](http://www.icao.int/meetings) and look for further information on this important 2014 event.



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# NEWS IN BRIEF



## SIGNING BY SOUTH AFRICA

On 26 September 2013, during a brief ceremony at ICAO Headquarters, South Africa signed the *Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation* (Beijing 2010), and the *Protocol Supplementary to the Convention for the Suppression of Unlawful Seizure of Aircraft* (Beijing 2010).



Shown on the occasion, from right to left, are: Mr. Johan Nel, Assistant Director, Science & Technology Coordination for South Africa; Mr. John Augustin, Acting Director, Legal Affairs and External Relations Bureau, ICAO; Mr. Zakhele Thwala, Deputy Director-General of Civil Aviation for South Africa; Mr. Levers Mabaso, Permanent Representative of South Africa to ICAO; Mr. Raymond Benjamin, Secretary General of ICAO; HE Elizabeth Dipuo Peters, Minister of Transport for South Africa; Mr. Rober to Kobeh González, President of the Council of ICAO; Mr. Yusuf Omar, Special Adviser to the Minister of South Africa; Ms. Mokgobeng Phirwa, Assistant Director for International Relations of South Africa; and Mr. Meshesha Belayneh, ICAO Regional Director, Eastern and Southern African Office.

## FIRST MEETING OF THE NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN AIR NAVIGATION IMPLEMENTATION WORKING GROUP (ANI/WG/1)

The First Meeting of the North American, Central American and Caribbean Air Navigation Implementation Working Group (ANI/WG/1) was held at the ICAO NACC Regional Office in Mexico City, Mexico, from 29 July to 1 August 2013. The event had 37 delegates from Antigua and Barbuda, Barbados, Belize, Canada, Colombia, Costa Rica, Cuba, Dominican Republic, Honduras, Jamaica, Mexico, Nicaragua, Trinidad and Tobago, United States, CANSO, COCESNA, IATA and IFATCA. The ANI/WG represents the consolidation of the existing sub-regional working groups enforcing the Air Navigation work implementation, optimizing the regional work and improving regional harmonization focused on the Air Traffic Management (ATM), Communications, Navigation and Surveillance (CNS) and Aeronautical Information Management (AIM) air navigation fields.

The Meeting documentation and report are available at:  
[www.icao.int/NACC/Pages/meetings-2013-aniwg1.aspx](http://www.icao.int/NACC/Pages/meetings-2013-aniwg1.aspx).



Participants at the First Meeting of the North American, Central American and Caribbean Air Navigation Implementation Working Group (ANI/WG/1).

# EIGHTH MEETING OF THE WORLD AREA FORECAST SYSTEM OPERATIONS GROUP (WAFSOPSG/8)

The eighth meeting of the World Area Forecast System Operations Group (WAFSOPSG/8) took place at the ICAO Asia and Pacific Office (APAC) from 2 to 5 September 2013. The Chairman, Mr. Dorinel Visoiu, presided over the meeting.

The meeting was attended by 22 participants from 12 States, including the two Provider States that host World Area Forecast Centres, as well as by relevant international organizations (the Agency for Air Navigation Safety in Africa and Madagascar [ASECNA], the International Air Transport Association [IATA], the International Federation of Air Line Pilots' Associations [IFALPA] and the World Meteorological Organization [WMO]), and reviewed WAFS-related provisions in ICAO Annex 3 and in air navigation plans.



Participants at the Eighth Meeting of the World Area Forecast System Operations Group (WAFSOPSG/8), 2-5 September 2013, ICAO Asia and Pacific office (APAC), Bangkok, Thailand.

In addition to addressing a number of issues related to the operation, implementation and future of the WAFS, the meeting agreed to draft provisions for the inclusion of three additional flight levels for WAFS forecasts as part of Amendment 77 to Annex 3- *Meteorological Service for International Air Navigation*. The group also agreed to consider the potential benefits and impacts of migrating the format of WAFS significant weather forecasts to a digital form.

With regard to the global provisions related to the WAFS, the group developed a proposal for the amendment of Annex 3 — *Meteorological Service for International Air Navigation*, Chapter 11, 11.1.9, Note 1 to account for the cessation of the international satellite communications system (ISCS) satellite broadcast in July 2012, and to appropriately refer to the one remaining WAFS satellite distribution system and the two existing WAFS Internet-based services provided by the WAFC Provider States (Conclusion 8/3).

## CANADA LAUNCHES PERMANENT COMMEMORATIVE PHOTO EXHIBIT CELEBRATING ICAO PRESENCE IN MONTRÉAL

ICAO Secretary General, Raymond Benjamin, was joined by the Honourable Denis Lebel, Minister of Infrastructure, Communities, and Intergovernmental Affairs and Minister of the Economic Development Agency of Canada for the Regions of Quebec, on behalf of the Honourable Lisa Raitt, Federal Minister of Transport, at the unveiling of a new photo exhibit at ICAO Headquarters in Montréal on 24 September 2013 entitled:

*"Montréal and ICAO: A Panoramic View of our History"*

The 30-panel photo exhibit donated by the Government of Canada provides a historical view of Montréal's contribution to international civil aviation since 1907. It also marks 2013 as the 30<sup>th</sup> time Canada has hosted an Assembly on behalf of the Organization, which now comprises 191 Member States.

"ICAO is very grateful to Canada for this excellent exhibit which will now be permanently located within our Montréal Headquarters," commented ICAO Secretary General, Raymond Benjamin. "Its depictions of ICAO's long history

here in Montréal are particularly fitting given Canada's strong historic commitment to our Organization and, by extension, to the entire global civil aviation community we serve."

Since 1946, Montréal has been the international Headquarters or 'Permanent Seat' of ICAO.



# Expand your knowledge of global supply chain security. Free of charge.



The new and free-to-download **ICAO-WCO Moving Air Cargo Globally** reference guide promotes awareness of the air cargo and mail supply chains, with an emphasis on the related security and facilitation procedures developed by the International Civil Aviation Organization (ICAO) and the World Customs Organization (WCO).

This document familiarizes readers with the roles and responsibilities of all local, national and international stakeholders and is an invaluable source for anyone looking to enhance the movement of goods by promoting effective end-to-end supply chain security. **For your free download in any of ICAO's six official languages, please visit:**

[www.icao.int/security/aircargo/documents](http://www.icao.int/security/aircargo/documents)



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- Very low combined Nuisance Alarm Rate: < 0.4%
- Compact size and ergonomic design
- No-ionizing source or part in movements

\* Optional