



Keynote Address by the Secretary General of ICAO

Mr. Raymond Benjamin

to the

Asean Aviation Training & Education Summit (AATES)

(Jakarta, Indonesia, 22 January 2013)

Good morning ladies and gentlemen,

I wish first to thank His Excellency and Minister of Transport, Mr. Evert Mangindaan, for his informative opening remarks on Indonesia's current aviation-related training programmes and objectives.

For those of you who may not be familiar with my Organization, ICAO is a UN Specialized Agency and the only global aviation Standards setting body. We serve 191 Member States, conduct continuous Safety and Security audits against progress, and amongst many other functions we increasingly provide more targeted assistance and capacity-building to States in a wide range of support domains.

This assistance is to be more important than ever over the next decade, notably in the training sector, as aviation today is at an important crossroads. Before I begin to review the critical training challenges before us, I wish to present a brief overview of some significant indicators and forecasts with importance to your region specifically.

~

The global air transport network has doubled in size every 15 years since 1977 and, between now and 2030, it will double again. This means that the 2.9 billion airline passengers carried in 2012 will grow to over 6 billion by 2030, and that the 30 million flights they flew on will reach 60 million annually over the same period.

The Asia-Pacific, or APAC Region as we refer to it in ICAO, has grown from being the 3rd largest to 1st largest air transport market in the world over just the last decade. This is a remarkable achievement and a trend which is showing no sign of slowing. Indeed total Revenue-passenger Kilometres for your region continued to grow at the rate of 5.9% during 2012.

As regards APAC air freight volumes, your region remains the world's largest in terms of its total freight load factor and longer-term forecasts presently indicate a generalized APAC growth rate of 5.3% per year through 2030.

Growth, of course, is only one measure of civil aviation progress. As we expand our capacity over the coming years our greatest priority remains maintaining and improving the safety of air transport operations.

I was encouraged to note in this regard, while reviewing some of Indonesia's recent safety audit and traffic results, that it presently enjoys an implementation rate of ICAO's safety oversight guidance which is just over twice as effective as the greater APAC region. These safety oversight capabilities are essential to ensuring longer-term operational safety results.

Since Indonesia's annual passenger traffic growth rate through 2030 is presently forecast at 6.7%, I would stress the need for continued diligence in the safety oversight area even as I congratulate it on the tremendous progress made in recent years.

~

Moving on to review the global training environment, several key challenges emerge that aviation must locally, regionally and globally address over the next few decades.

One of the most important impacts on human resource development and management in our new millennium is the expansion of high-technology into every major industrial sector. This in turn has led to tremendous competition across all industries for the qualified technical personnel.

In addition to this impact there is also the demographic challenge of attrition. As but one example I would highlight that, between 2005 and 2015, 73% of the U.S. Air Traffic Controller population will have reached retirement age. ICAO too is facing similar challenges, with some 25% of our workforce poised to reach retirement age by 2016.

Clearly, replacing one generation of experienced technical professionals with another is not as simple as upgrading infrastructure or buying new aircraft. The examples I mentioned are hardly isolated examples and we must ensure that attrition-related impacts are properly considered in our recruitment planning.

Perhaps most serious of all is the sheer scale of the human resource challenge now facing global aviation. ICAO's forecasts currently project 2030 aviation workforce requirements in the area of 980,000 pilots and 1.16 million maintenance personnel worldwide.

With respect to training, our major concern is not these total populations, but rather how many new employees we need to recruit and cost-effectively trained to fill the emerging positions. Recent industry figures are enlightening in this regard.

Boeing's 2011-2030 forecasts, for example, indicate the need for 460,000 new pilots and 650,000 new maintenance and other technicians by 2030. These numbers are consistent with the 2009 IATA study which first brought this situation to light.

The APAC Region in particular will be home to fully one quarter of these pilots and maintenance personnel by 2030, which equates to roughly 230,000 pilots and 290,000 maintenance technicians.

To achieve this, your region will have an annual training demand for 14,000 pilots and 19,000 maintenance employees. However the combined APAC training capacity at present is only able to produce roughly 5,000 pilots and 4,000 maintenance personnel. These figures underscore your region's current training capacity challenge.

Furthermore, with the one exception of North America, where current training capacity is strong and projected growth will be weakest, every other ICAO world region faces similar training capacity shortfalls that must be addressed.

It is in light of projections such as these that training, assistance and capacity building are becoming such key areas of priority for ICAO today. That is why we have to provide and expand training courses and global seminars across a wide range of domains, including safety, security, air navigation efficiency and climate change.

We are also focusing concertedly on our Next Generation of Aviation Professionals, or *NGAP* initiative. This programme is delivering solutions specific to the projected shortages in skilled aviation personnel I have just reviewed, focusing primarily on recruitment strategies and new methods of training provision.

During 2012, the NGAP Task Force participated at the World Aviation Training Symposium, or WATS, convening two panels and a parallel informal meeting. Over 2013, four new NGAP Regional Conferences will be held in South Africa, Turkey, Jamaica, and right here in Bali, Indonesia.

These conferences are an excellent opportunity for States and training organizations to raise awareness of local initiatives at the regional level and share best practices in order to optimize available resources.

Additional NGAP efforts include the formalizing of the specific competencies for the primary *Annex 1* Personnel Licensing functions, including airline transport pilots, air traffic controllers and maintenance workers.

Defining these competencies is the first step in enabling more targeted and cost-effective training solutions, such as the multi-crew pilot license approach which is now being used to great success.

On a related note in the area of youth attraction and development, ICAO has just signed a new agreement with ACI and IATA supporting a new Young Aviation Professionals Programme. This initiative will select talented candidates with suitable levels of basic aviation knowledge and expose them to real-world work programmes and projects to help enrich their sector experience.

In a more generalized sense, ICAO is also adapting its training resources and guidance to reflect latest developments. This includes the development of interactive, self-guided learning tools as well as supporting new solutions such as the simulator-intensive and aircraft-specific multi-crew pilot license approach to flight crew training.

Because our organization is very information-intensive, the delivery of training courses, seminars and workshops is essential to ensure that our Annexes, as well of course as the Standards and guidance that flow from them, are properly understood and effectively applied.

An additional measure which ICAO is pursuing to maximize training effectiveness globally over the coming decades is the improved standardization of training courses and approaches, through our TRAINAIR *PLUS* programme. This membership-based initiative fosters improved networking among aviation training providers globally, as well as more efficient access to high-quality training tools and materials used in course development.

Another very useful ICAO TRAINAIR *PLUS* initiative is its Aviation Training Directory, which lists more than 700 training centres in over 100 countries. The Aviation Training Directory additionally provides access to over 5,000 course listings across close to 200 aviation training categories.

~

Besides these programmes I have just described, which are uniquely dedicated to specific training- and recruitment-related challenges, ICAO also provides a wide range of courses directly supporting our more operationally-oriented Strategic Objectives.

The constant improvement of **Aviation Safety** is foremost among these, and we therefore offer a range of courses aimed at identifying and mitigating safety risk. One such example would be our collaborative and multidisciplinary runway safety seminars, delivered in conjunction with organizations such as IATA, ACI and CANSO. These have been ongoing over 2012 and are continuing through 2013.

Safety management and safety oversight are similarly areas of high-priority for ICAO, and I would point out that our safety management guidance is aimed at both State and industry stakeholders. This is an especially important area for improved capacity building and, to date, ICAO has been very encouraged by the adoption rate for State Safety Programmes and Safety Management System approaches.

We remain confident that aviation's current and very successful safety results will be improved further still as the implementation of these new reporting cultures and methodologies becomes more wide-spread.

Another important operational Strategic Objective is **Air Navigation Capacity and Efficiency**, and we have therefore been conducting extensive conferences, seminars and implementation workshops on Performance-based Navigation, or *PBN*, in recent years. PBN is presently aviation's highest air navigation priority.

ICAO also recently introduced new PBN *iKits* during our 12th Air Navigation Conference held last year. These USB-based tools can interactively deliver comprehensive guidance and documentation based on the specific operational roles and responsibilities of air navigation specialists such as pilots, airspace designers and ATM planners. Based on the encouraging stakeholder appreciation of this PBN tool we will be looking to develop further *iKits* in other areas over the coming months.

I would also like to point out that we have developed a unique *PBN Flight Procedures Programme* in recent years which fulfills important educational and capacity-building roles. The first such Flight Procedures Programme Office, established in Beijing, conducted PBN courses serving over 900 students from your region over 2011-2012. The second, which will be established in Africa in September of this year, will have a similar mandate and capacity.

Aviation Security is another important Strategic Objective of ICAO, and accordingly we have established a dedicated Aviation Security Training Centre global network across 23 countries to deliver courses in this area. These training offerings are applicable to both management and planning personnel, as well as hands-on, inspector-level employees.

Another important measure undertaken by ICAO in the aviation security area is to provide workshops which help States to develop their own security training instructors. In all, some 45 aviation security workshops and courses were delivered during 2012.

In the **Environmental** domain, ICAO is presently assisting our States with the development of their State Action Plans to address aviation climate change impacts. ICAO conducted seven of these hands-on training workshops between 2011 and 2012 and is presently finalizing arrangements for another workshop here in Indonesia during 2013. Ninety-one States, representing 93% of global international air traffic, have been trained at these events to this point.

~

Ladies and gentlemen, I have tried to describe both the growth and capacity challenges facing the global aviation system over the coming decades, in addition to the skilled personnel and training capacity shortfalls that continue to represent serious risks to related planning and goals.

It must be stressed that the ICAO actions and programmes, designed primarily to help mitigate these risks, are by definition only part of the solution that must be realized.

To successfully and safely manage the projected growth, it will require leadership and commitment at every level of governance and in every aspect of human resource management. This is true at the global, regional and local level, and even on a company-by-company basis.

We must continue to highlight the merits of aviation careers and leverage the latest in technology and social networking to ensure that we remain an attractive and well-acknowledged employment option for today's youth.

Training, assistance to our Member States and capacity building are essential responsibilities of my Organization, and it is my intention to keep ICAO focused on these efforts for the duration of my current mandate.

I thank you very much again for this opportunity to speak to you this morning.

— END —