



**Address by the Secretary General of ICAO
Mr. Raymond Benjamin
to the
*ECAC Aviation Training Conference
(Istanbul, Turkey, 24-25 June 2010)***

1. I am delighted to take part in this conference on aviation training and I look forward to stimulating and forward-looking discussions.
2. In my opening remarks this morning, I will address the subject of training from the perspective of the anticipated shortage of human resources in safety-critical areas of air transport.
3. This shortage would be the result of waves of retirements of aviation professionals; thousands of new aircraft coming on line, with highly sophisticated technologies; an increase in aircraft movements related to the anticipated growth in traffic; competition with other industry sectors for skilled employees; and, the lack of accessibility to affordable training adapted to new operational and technical realities. I would add to this list a lack of awareness by the coming generation of the types of aviation jobs available to them.
4. Managing the situation on a global basis means that capacity will have to match demand in terms of quality and quantity of training offered. In Europe specifically, two major issues need to be addressed. Given the mobility of the workforce within the Union, special emphasis must be placed on defining core contents for jobs, harmonizing training practices and tools through a competency-based approach, ensuring commonality in knowledge and skills, all of this carried out while respecting local specifications and levels of development.
5. The other issue is the evolution of certain functions flowing from the advent of new technologies and procedures, developments which will require new skills and new learning techniques.
6. Adding to the challenge is the fact that we do not have a reliable assessment of the nature and scope of the problem, upon which to build concrete and effective solutions. Our data is still too fragmented, although we are making progress in collecting information.
7. ICAO is currently conducting an extensive and detailed analysis of future pilot requirements around the world and the results should be available this coming November. For example, preliminary data suggests that between 2010 and 2030, Europe will need approximately 15,500 new pilots every year, while it has a reported annual training capacity of about 8,000 pilots.

8. While gathering statistics on human resources is critical to the process, it is also the seemingly easy part. More difficult is understanding how new technologies are, and will be, impacting existing aviation professions. For example, what will be the relationship between humans and machines? What will be the role of humans in a highly automated context? How do we train and educate for technologies that are not yet widespread in the industry?
9. In essence then, we have to understand better the problem, increase and adapt training capacity to meet an ever growing demand, make aviation careers more visible and attractive to potential candidates, and ensure harmonization and standardization of competencies.
10. I am looking to this conference to provide some of the answers that we can incorporate into global solutions for worldwide implementation, which is part of ICAO's role.
11. Our strategy is based on an initiative called the Next Generation of Aviation Professionals, or NGAP for short. It is designed to encourage the sustained availability of enough qualified and competent aviation professionals to operate, manage and maintain the future international air transport system.
12. In May 2009, we created an NGAP Taskforce, consisting of experts from the aerospace industry, training providers, regulatory bodies and international organizations, many of which are present at this conference.
13. The goal of the Taskforce is threefold: to develop and introduce competency-based training; ensure harmonized implementation around the world; and identify ways and means to improve industry attractiveness.
14. At the first NGAP Symposium in March of this year, a number of key issues and principles were put forth, which you might consider at this meeting.
 - one is that the international community has a collective responsibility to attract and retain the "best and brightest" and to ensure they have access to quality and affordable aviation education and training;
 - another is that regulatory frameworks should enable and support the use of modern training and learning technologies and should not be an obstacle to industry best practices;
 - administrative constraints such as multiple certification processes of training organizations, training devices, and training programmes, should be limited as much as possible;
 - industry-established standards should be supported as a way to demonstrate compliance with international and national regulatory requirements; and finally,
 - the free-flow of professionals should not be inhibited by unnecessary administrative procedures and should be facilitated through internationally agreed upon standards and assessment practices. To this end, there is a need to define competencies for all aviation activities affecting safety

15. Just a few weeks ago, the Taskforce established a work programme that includes the enhancement of training to meet the demands of new procedures and increasingly complex technologies. It will also look into accreditation of aviation university programmes and outreach activities to promote aviation careers to potential candidates.
16. The first objective is to complete the development of competencies for all personnel licensing functions as contained in Annex one to the Chicago Convention, for pilots and air traffic management professionals. In time, the Taskforce will expand its activities to other aviation disciplines such as meteorological officers, aeronautical information officers and flight dispatchers.
17. One last point I'd like to make is that, given the growth of the training industry over the years, I find it quite surprising that an umbrella organization does not yet exist for training institutions. All other major aviation stakeholders have representative bodies, which have allowed them to effectively and collectively make their positions and concerns known in international aviation gatherings and before government regulatory authorities and obviously ICAO.
18. More important perhaps, it has made it possible to develop global consensus on harmonizing and implementing policies, generally improving the efficiency of the global air transport system. The Taskforce pointed out the value of such an international representative body and ICAO would certainly encourage its formation, to the benefit of the entire world aviation community.
19. To conclude, let me emphasize that the next generation of aviation professionals will work in a world that is radically different to what it is today, with advanced global navigation systems, unmanned aircraft controlled at distance, glass cockpits and even sub-orbital flights.
20. At the same time, there are fundamental social issues that are transforming the work environment and personal values — issues such as the global citizen's responsibility to protect the planet, the need for a lifestyle that balances work and family, access to aviation training and education that is affordable. All of these considerations, we know, are of growing importance to the next generation.
21. Times have changed and we must adapt.
22. The international aviation community, collectively, needs to address all of these issues, in a holistic and harmonized manner. All of us in this hall must engage in finding creative alternatives to ensure that the air transportation system continues to evolve in a safe, secure and sustainable manner.

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