

ISSUE 16

NURTURING AVIATION TALENT OF THE FUTURE

With the projected growth of the global aviation industry remaining steady in spite of economic uncertainties, it is anticipated that the demand for trained aviation professionals will continue to rise. Since the launch of the Next Generation of Aviation Professionals (NGAP) initiative by the International Civil Aviation Organization (ICAO) in 2009, the International Air Transport Association (IATA) and industry stakeholders have joined efforts to develop policies and programmes to ensure that a steady and sustainable pipeline of competent personnel to manage and maintain our global air transportation system. In this issue of Bridging Skies, we look at how Singapore is tackling the pressing issue of aviation manpower development.

According to ICAO, in the next 20 years, airlines will add 25,000 new aircraft to the current 17,000-strong commercial fleet. By 2026, 480,000 technicians will be needed to maintain these aircraft and over 350,000 pilots to fly them. More critically, it is also expected that a large contingent of the current generation of aviation professionals will retire, while aviation continues to compete with other industries for highly skilled professionals. With this in mind, the NGAP Taskforce established by ICAO in 2009 set out to look into attracting and retaining the “best and brightest” professionals for the aviation industry. At the same time, they work with key stakeholders to remove regulatory obstacles and explore lightening the certification burden without jeopardising safety. To accelerate the development of a new generation of aviation professionals, the NGAP Taskforce also works with the global aviation training and education community to make aviation training and education more accessible.

In Singapore, our aviation manpower development efforts have intensified in the last 12 months. In alignment with the focus of the NGAP Taskforce, our strategies are rationalised into a three-pronged approach – firstly, to change the way we regulate, secondly, to build and harmonise training capacity and lastly, to tie in all efforts to actively reach out to our next generation of aviation professionals.

CHANGING THE WAY WE REGULATE

In aviation, it is important for aviation professionals to build on their competencies, as their skills and training will remain the essential guarantee for efficient and safe operations in the face of technological advancement and industry growth. In this regard, the IATA Training and

Qualification Initiative (ITQI) commenced the mapping of competencies for engineering, maintenance and flight operation personnel. With ICAO's joint involvement, the plan expanded to develop a competency-based framework for all flight, maintenance and other professional aviation personnel, which is expected to be completed by the end of 2011.

In 2007, Singapore's national competency-based framework, the Singapore Workforce Skills Qualifications (WSQ), was developed for aerospace Maintenance, Repair, Overhaul (MRO) non-certifying personnel. The programme has been gaining industry acceptance with industry human resource systems adjusting to changing Competency Based Training (CBT) style of training delivery and assessment. With Singapore's own experience in CBT, Singapore has been actively engaged in the development of the international CBT Framework, studying its impact on local regulations when CBT comes fully online in the near future.

One of the first trial CBT initiatives under the regulatory framework is the Multi-crew Pilot License (MPL) initiative introduced by ICAO. It is an alternative path to train pilots directly for co-pilot duties in an airline operational environment. Singapore is one of the first countries to implement the MPL trial. The MPL training is conducted by an approved aviation training academy in partnership with a local airline. The Civil Aviation Authority of Singapore (CAAS) is currently in the process of developing full regulations and requirements for MPL.

The CAAS has also been taking a proactive and pro-enterprise approach by consulting the industry and Institutes of Higher Learning (IHL) to ensure that our regulatory regime meets industry's business needs and is robust and future-ready.

HARMONISING TRAINING

Another area of focus for the NGAP Taskforce is the lack of harmonised competencies in some aviation disciplines, which further compounds the shortage of skilled aviation professionals. In 2010, ICAO developed the ICAO Civil Aviation Training Policy, which provides training guidelines for aviation training institutions to establish Standard Training Packages (STP) and allow ICAO to begin to endorse aviation training institutions by the end of 2011. With a clearer definition of training standards by ICAO, it encourages more to harmonise their training programmes and enhance the capabilities of aviation personnel to the highest level.

Supporting the NGAP strategies, a review of ICAO's TRAINAIR Programme was conducted. The result of this review was the introduction of the new upgraded programme called TRAINAIR PLUS. The TRAINAIR PLUS Programme has been developed based on rebuilding three inter-related tools:

- The use of standardised training material
- The development of an international pool of training courses
- The creation of an international sharing network between public and private Civil Aviation Training Centres.

The Singapore Aviation Academy (SAA) was recently admitted as an Associate Member under the TRAINAIR PLUS Programme. It is planning the development of an STP for Aeronautical Search and Rescue Operations course. SAA will also host the first Global TRAINAIR PLUS Symposium in 2012.

FINDING THE NEXT GENERATION AVIATION PROFESSIONALS

To establish the right strategies to build future manpower needs of the aviation industry, closer industry consultation and projection of manpower demand and supply numbers is needed. With the buy-in from key stakeholders, these strategies, which may include appropriate funding for key initiatives, can be implemented. Following an extensive study on the aerospace MRO and manufacturing sectors, it was disclosed that the industry was suffering a relatively high turnover rate, prompting the formulation of retention strategies to mitigate this problem. Apart from retaining talents, the industry also recognised the need to reach out and pursue the young to generate new blood for our next generation of professionals. The key challenge in this is attracting the youth to enter the industry. Creating that awareness for them to consider aviation as a career would be a first step.

To tackle this need, CAAS sought to create awareness by engaging our youths with a concerted Youth Outreach Strategy. They reviewed and segmented the target audience and mapped out the objectives based on maturity and level of education. The three-tier outreach strategy includes collaborating with educational institutes to build awareness of the aviation industry at the secondary level, entrench students' interests in the industry at the junior college and tertiary levels and support active recruitment by industry prior to graduation. The results have been encouraging and both industry and education institutions have participated widely in these engagement efforts.

An outreach programme that has garnered widespread participation is the Aviation Open House where students from polytechnics, universities and private institutions gather to meet industry players and practitioners to find out more about the reality of the industry and job prospects through an exhibition and interactive career talks and games. Students who attended the Open House in 2010 and 2011 shared that they were more enlightened about the industry and the educational and training opportunities available to pursue a career in aviation. For secondary school students, CAAS also launched the *Aviation Learning Journeys* in early 2011. This initiative provides students with a platform to understand more about aviation, Singapore's aviation history, its key achievements and industry career opportunities through an interactive presentation and site visit.

Beyond youth-centric events and activities, there are other plans to continually engage and create interactive opportunities with the youth by leveraging on social media platforms like YouTube and Facebook to educate and create general awareness of the aviation industry. More studies are planned for other sectors in aviation, including air logistics and airport ground handling.

LAYING THE FOUNDATION TO BUILD OUR WORKFORCE

Manpower development will be an enduring issue that the industry will be grappling with for some time to come. The recipe here is to continually engage the industry and tailor long-term initiatives targeted at making a difference for the industry. Bridging the gap between supply and demand would require concerted efforts from regulators and industry players to ensure that developed plans support business growth and meet the industry's specialised human resource needs. To sustain the aviation industry's continued growth with the professionals required, Singapore is addressing these challenges, working closely with the international, as well as local aviation and training community.