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From the AEI Secretary General:

AEI To assist and co-operate in the worldwide effort to meet the industry demands for more technicians and engineers.

IATA: The aviation industry is at an onset of a massive shortage for licensed staff – both on flight crews and Engineering, particular in the emerging markets such as China, Russia and India. It is expected that this shortage will affect Europe, CIS and other areas rather sooner than later. Industry bodies (Boeing, Asian Pacific Airline Association etc.) talk about a requirement of up to 30000 qualified staff for the next 7 years in the Asian Pacific region whereby traditional recruitment sources are drying up. The following areas have been identified as critical success factors to ensure the required growth by maintaining the essential quality and safety standards:

- Harmonization of national requirements and regulations for the entire recruitment process
- Certification standards for training providers.
- Configuration standards for flight training devices (simulator).
- Standards for training concepts and syllabus.
- Guidelines for staff selection and preparation.

AEI has finally found industry is waking up and starting to recognise what has been propagated by AEI for years, that industry is not gearing up for the future growth of Aviation Worldwide.

From the various studies by the major stakeholders in industry, it has become clear that industry is facing major shortage in Technicians, Engineers and Pilots to meet the expected growth of 17000 aircrafts in the next 20 years. In addition aviation has to meet the effect of the baby boom generation who will go into retirement in the next 10-15 years. Estimated figures indicate that of 500,000 technicians and engineers as well as more than 200,000 pilots in addition to what's needed to replace personnel exiting including retiring staff.

Despite warnings (from AEI and others) aviation industry and particularly aviation maintenance has reduced its training centres, other training possibilities for example computer training, apprenticeships, and training efforts because of the repetitive short-sight-ness of maintenance management. This Management has only had eyes for the present good financial results and worked with the decision horizon for the next budget.

Almost any decision that did not meet the targets of ROI (Return on Investment) within the next 2 years was simply set aside. This is now creating a rapidly increasing problem with shortage of technicians and engineers. Where pilots could easily be trained within a 2 years time span, maintenance engineers trajectory from apprentice to full grown and certified engineers can take 6-8 years.

AEI finds it essential that we participate in this IATA process, guarding the levels and advising on the course to solutions to alleviate this critical Engineer shortage.

We have to be sure that this shortage is not "solved" by reducing the already sometimes very short and irresponsible reduced training demands.

Present training standards (for Part 66, A&P etc) should not only be met, but in additions should be "upgraded" to meet

the present demands of industry, not only for staff entering the industry but for “present staff” as well.

In some (not the least aviation areas) the present training is still set to work with old fashioned aircraft while industry needs fully trained personnel to meet the needs of the Airbus A330-340-350-380; Boeing 777-787 and other sophisticated aircraft.

The tendency of industry to reduce training with the standard phrase that aircraft become easier to maintain maybe partially true. Many systems have build in test systems, but while the built in systems may help, what they tell is there is a problem in a certain area, and although it gives advice to replace a component assuming on the fact that wiring is ok, connectors are not corroded etc. Systems have become more and more complex with often internal cross connections and integration with other systems.

Poorly educated Personnel can replace components, but proper trouble shooting of system errors takes a lot more time and skill. Aviation Industry is loosing Hundreds of Millions Euros due to today's many aircraft systems components being replaced because their staff is not properly trained to carry out proper trouble-shooting

Many components (some costing easily more then 100,000 Euros each) are returned from shop inspections with “no fault found” meaning they are probably replaced without being the cause of the system failure.

Management should consider that choosing the cheapest training available in the market may sound a financially wise decision, but if they were aware of this “no fault found rate” and the related costs, the outcome could be completely different. As we say you can train a monkey to ride a bike, but you can never train it to maintain one.

We have seen aircraft type rating training (Boeing 737) for engineers ranging from 2-9 weeks for the same license. You

can draw your own conclusions on the level of training provided.

In addition, as aviation industry slowly starts to realize it requires to have attractive working conditions, salary, careers paths etc to compete with other technical industries for the reducing amount of technically minded youth that has a negative feeling with regards working shifts, weekends, and sometimes bad weather conditions, and the large amount of people being fired with the slightest downturn in industry. These issues push people away from the aviation industry after sometimes years of investing money in their training. To solve these problems long term plans need to be put in place to prevent airlines buying aircraft now, and then being lined up on the Tarmac, but not ready to fly due to shortage of maintenance staff.

AEI sees it as one of its major tasks for the coming decades is to stand guard, defend proper training and upgrading of the aviation maintenance staff and also helping industry to overcome the before mentioned problems but "keeping up the safety levels this industry requires".

We keep them flying, safely

Fred Bruggeman
AEI Secretary General