



Training for the Pilot Shortage

Facing the needs of today and, even more, tomorrow.

BY J.A. DONOGHUE | FROM ORLANDO

“I think the pilot shortage is real and is only going to get worse,” said Paul Hinton, retired United Airlines pilot and manager, and CEO of Saferjett, a keynote speaker at the World Aviation Training Conference (WATS) in Orlando, Florida, U.S. in April, 2008. Hinton, also a retired Alteon executive, put his finger on the subject that was a major concern of aviation companies attending WATS: how to handle the increasing need for quality pilots.

“I’m not too concerned about putting a low-time pilot in the right seat,” Hinton said. “I’m more concerned about moving that low-time pilot to the left seat.”

“Everything comes down to safety,” said Chris Schroeder, head of global flight operations for the International Air Transport Association (IATA), and the operations project lead of the IATA Training and Qualification Initiative (ITQI) in which Flight Safety Foundation is a partner with International Civil Aviation Organization (ICAO) participation.

Citing the ITQI mission statement, Schroeder said, “In times of high demand, there is a potential risk for a drop in training — and quality standards. It is important to quantify and to balance the demand and the supply of licensed personnel on a regional as well as on a global level in all segments

of the aviation industry, with sustained quality and no compromise to safety and quality.”

ITQI, which has “secured resources and buy-in from all segments of the aviation industry,” intends to develop recommendations for meeting the training needs for pilots, maintenance technicians and engineers with no compromise on safety and quality, Schroeder said. To that end, a number of immediate goals have been set. For the total project the “deliverables” include:

- Collect data and quantify the need and cost;
- Conduct a cost-benefit analysis;

- Conduct a global survey of industry competitiveness and attractiveness;
- Identify solutions to mitigate the shortage;
- Develop a proposal for renewed training and qualification process; and,
- Develop a communication strategy.

On the operations side, the project begins with a review of existing regulations and the development of global standards and best practices for:

- Multi-crew pilot license¹ (MPL) implementation;
- Instructor qualification;
- Flight simulator qualification;
- Approval criteria for training providers;
- Pre-selection criteria for pilots;
- Type rating and recurrent training; and,
- Transition into competency-based training.

Although the extent of the problem in the engineering and maintenance (E&M) side of the airline industry is difficult to track because of a comparative lack of data — the airlines’ need for pilots is easily linked to aircraft orders and forecasts, Schroeder said. Starting with a review of regulations and requirements, global standards and best practices will be developed for:

- Qualification requirements for E&M training syllabi and training devices;
- Recruitment and selection criteria;
- Training provider certification standards;

- E&M training requirements; and,
- Transition into competency-based training.

Although the task categories imply that there will be silos of concern with no interaction between them, he said that part of the plan includes a cross-feed of information between the segments to ensure that the initiatives have a chance to work, an example being a connection between airline transport pilot (ATP) license standards, MPL and candidate-selection criteria.

Peter Wolfe, executive director of the Professional Aviation Board of Certification (PABC), said that a key problem in pilot training is the “lack of a pre-employment standard,” the high cost of bridging the gap between achieving a commercial pilot license (CPL) and gaining the experience needed for airline operations, and the lack of instructors, lured away from what had been time-building jobs by airlines with immediate needs.

“The most effective gap-closer is the MPL, but that will take time to build up,” Wolfe said. One of the problems, he said, is that there are no global standards as “the gap-fillers have yet to be calibrated, coordinated.” Also troubling is the lack of consistent global testing standards for the CPL.

As part of the ITQI effort, the PABC is taking a leading role in developing such standards and certifications. Wolfe said the group plans to propose a global ATP examination that will unify all the existing paths to the cockpit, including MPL, through one standard.

ITQI will provide spin-off benefits, he said. “Lessons learned from the pilot shortage effort will have application in the other industry disciplines such as air traffic control, cabin, dispatchers and unmanned [aircraft system] operators.”

“MPL is a proactive and viable solution” to the pilot shortage problem, key-note Hinton said to start the conference.

Anna Kjaer, chief ground instructor, Center Air Pilot Academy, and Claus Gammelgaard, director of flight operations, Sterling Airlines, enthusiastically supported MPL based on their experience using an MPL program to train pilots for Sterling.

Calling MPL “the biggest overhaul of pilot training in more than 40 years,” Kjaer said MPL planning with Sterling began in 2004, resulting in a January 2007 start of the initial class of four students, who graduated in September 2007. The first MPL graduates passed line checks and started flying as first officers in November. The second batch of MPL students, eight this time, graduated in March 2008, she said; her company has agreed to supply MPL-trained pilots to “numerous companies.”

The MPL training is not a shortcut, but “is a bit quicker” than traditional methods “because it is competency-based,” Kjaer said. Based on airline needs, the training reduces the amount of “de-learning” the trainees must endure when going through line qualifications. Other differences include producing pilots with increased company loyalty, higher instructor professionalism and better scheduling of simulator time.

Gammelgaard said Sterling does its own line training in-house, allowing a comparison between MPL and CPL line qualifying scores by using the same examiner. “Out of the first four MPL graduates, three were rated at a high standard. They were released to the line after a bare minimum amount of training, and they are performing a lot better than standard new hires,” Gammelgaard said. The second batch, while not at quite the same

high level as the first group, was doing well in their line checks, he said.

“MPL does work. There’s no magic, just applying what we’ve learned about pilot training over 40 years of experience.”

The segment of the airline industry most impacted by the pilot shortage seems to be the regional airlines. Brian T. Wilson, a training captain for Atlantic Southeast Airlines (ASA), detailed how the average new-hire a decade ago had 8,000-plus flight hours total time, 1,200 flight hours multi-engine and a background in corporate, charter and military flying. This year, ASA’s high-time new-hire had 8,000 flight hours, but the low-time pilot had just 200 flight hours, with the average sitting at 600 flight hours total time, 120 flight hours multi-engine and a background in instruction and fast track programs. The immediate impact of this quality decrease for the airline was “additional simulator time and a higher washout rate,” Wilson said. Also increasing is the amount of flying new hires need before being released to line flying.

ASA looked at the shortcomings pilots were exhibiting, Wilson said, and the airline realized that the areas found lacking were those that previously had been supplied to pilots by the experience they got before arriving at ASA. “Our past assumption of professionalism and discipline is no longer valid,” he said. The same was true about basic flight management skills and the ability to apply theoretical knowledge to the real world.

This realization led the airline to develop “The Expertise Approach,” teaching in a structured way the kinds of information formerly gained through a series of “chance encounters.” Trying to “convey experience by design,” ASA will begin training its new pilots in pattern recognition, “experience as a memory of events, cues and information stored as patterns which are recognized in future events.” The process is being developed through interviews and panels with subject matter experts. Assisting in this process is the Team Performance Lab of Central Florida University and George Mason University, basing their work on psychologist Dr.

Gary Klein’s Recognition-Primed Decision Model, Wilson said.

The problem of low pilot experience will continue to get worse, said Gregory Darrow, senior director, sales, at Pan Am International Flight Academy. The demand from airlines and flight departments is so strong, and taking so many instructors, he said, “that training companies are paying for their high-quality students to get their instructor ratings only to lose them even before they get the rating.”

Minimum experience requirements at regional airlines range from 850 flight hours at Skywest to as low as 400 flight hours at American Eagle, “and all have exceptions for even lower time. The washout rate is as high as 40 percent, creating exceptional training costs.”

Larry Neal, Comair’s manager, training, said, “We’re pretty much all in the same situation out there, seeking qualified individuals.” In 2006, Comair was getting the first signs of a tightening labor market, and began adjusting training to account for the lower experience levels, the training changed to address the experience level of each new class. A recent class had experience ranging from 600 to 200 flight hours, total time, with some pilots having to take a pre-employment jet transition course to bridge the gap in their skills. As an indication of the level of skills Comair is experiencing, Neal said, “our two biggest [skill] problems are visual approaches and no-flap landings.”

The full proceedings from WATS 2008 can be found at <www.halldale.com>. ●

Note

1. ICAO says the multi-crew pilot license “is a new license that allows a pilot to exercise the privileges of a copilot in a commercial air transportation on multi-crew airplanes. It provides the aviation community with an opportunity to train pilots directly for copilot duties. It focuses on ab initio airline pilot training. MPL training and assessment is competency-based and involves a multi-crew environment and threat-and-error management from the onset.” It also provides for greater use of flight simulation training and reduces the role of solo flying (ASW, 12/07, p. 38).



Schroeder

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