



Quality Control for Pilots

An independent organization aims to set high, industrywide standards for new pilots.

BY CONSTANCE BOVIER

By now, virtually the entire aviation industry has heard the International Air Transport Association's estimate that the global demand for new commercial pilots will average 17,000 per year for the next 20 years. This figure far exceeds the current annual number of pilots who earn a commercial license with an instrument rating, the minimum credentials required to fly for hire. As Flight Safety Foundation President and CEO William R. Voss noted in his article about the Foundation's realigned priorities (*ASW*, 12/07, p. 16), the growing shortage of qualified personnel is emerging as a significant risk to the safety of the aviation system.

As the industry wrestles with this dilemma, the Professional Aviation Board of Certification (PABC; see sidebar) is proposing that pilot preparedness be tackled head-on by creating a globally accepted standard for training entry-level professional pilots.¹ PABC Executive Director Peter Wolfe explains that to be effective, such an international standard must be consistent with the new multi-crew pilot license (MPL) requirements (*ASW*, 12/07, p. 38) and be adaptable for use by the current extensive network of training programs that will continue to supply the industry for the foreseeable future.

Six different training paths now deliver pilots into commercial and business aviation cockpits (Figure 1, p. 26):

- The military;
- U.S. Federal Aviation Administration (FAA)/Industry Training Standards (FITS);
- Traditional;
- Bridge;
- Ab initio; and,
- MPL.

The MPL is the most recent, comprehensive, entry-level professional pilot training standard, created and approved by a large cross-section of international

industry stakeholders. The other five training paths share no common standard, resulting in graduates whose knowledge, skills and competencies range from excellent to unacceptable.

Until the 1970s, most civilian-trained pilots followed the traditional path — especially in the United States, Canada and Australia — which enabled them to earn their private and commercial licenses, with instrument and multi-engine ratings, so they would be competitive when applying for the entry-level flying jobs of that era. Upon graduation, these new aviators typically added a flight instructor certificate to their résumés and flew any and all equipment to help build hours in their logbooks and accelerate their climb up the career ladder. Over time, however, a gap developed between the four licenses and ratings of the traditional track and the evolving needs of the industry. Recognition of this gap spurred development of other training paths, all of which, except MPL, are derivatives of the original traditional model.

Ab initio — a Latin term meaning “from the beginning” — was the first training method to include airline practices and procedures from the earliest stages. Ab initio courses introduce a wide range of air carrier operations while students earn commercial, instrument and multi-engine pilot qualifications. In most cases, these courses offer carrier- and type-specific training in support of a particular airline.

Bridge programs emerged in the mid-1980s to meet the increasing demand for pilots created by regional airlines. At first, bridge programs filled the gap between licensing — commercial, instrument and multi-engine certificates — and the needs of the industry by introducing supplementary training, consisting of a broad array of previously

unaddressed subjects and skills needed to fly commercial and business aircraft. Today, a number of bridge programs introduce aspects of commercial and business aviation *during* the licensing phases. Generally — certainly in the United States — pilots are self-funded from the beginning of licensing courses through the completion of bridge programs, which increase candidate appeal to prospective employers and improve their ability to succeed in employers’ demanding new-hire training.

FITS and Starts

The FITS program, launched by the FAA in 2002, is the newest U.S. training path by which pilots can fulfill basic certification requirements. Like MPL, FITS encourages trainers to use the most advanced educational methods to turn out graduates who are highly competent in required flying skills and in general airmanship. Although FITS is in the early stages of development, it appears capable of delivering well-prepared applicants to the ranks of professional pilots, when training is augmented by courses addressing jet aircraft and commercial/business operations.

Military services around the world produce well-trained, experienced aviators who often transition into civilian flying careers. In the United States, military pilots receive FAA commercial and instrument certificates when they pass a written competence examination.

Figure 1 shows how most military, FITS, bridge and ab initio paths now offer supplementary courses to diminish the training gap and better meet industry needs.

Employers want pilot candidates who can begin classes already able to aviate, navigate and communicate, with a firm grasp of weather, the air traffic system, jet aircraft, high altitude and commercial flight operations, critical thinking skills, crew resource management, and threat and error management. Given the absence of stakeholder-defined and -approved standards, most training providers have been left to rely on their own judgment in selecting topics and determining their relative importance when designing courses.

The irresistible attraction of the latest flight deck avionics for today’s computer-gaming youth explains why many vendors have emphasized this

Professional Aviation Board of Certification

The Professional Aviation Board of Certification (PABC) is a nonprofit U.S.-based corporation created to ensure the preparedness of pilots seeking professional careers in commercial and business aviation. This concept, rooted in discussions held in the mid-1990s by the Air Transport Association’s Operations Council, has been developed as an independent initiative without formal affiliation with any commercial or regulatory body. This frees PABC to address the overall interests of the aviation industry as its primary concern.

PABC Executive Director Peter Wolfe is a retired commercial and U.S. Air Force pilot and former airline executive and pilot trainer. The PABC board of directors and advisory council include representatives from seven stakeholder groups: employers, educators, pilots, government agencies, insurers, manufacturers and service providers, and the public. The board and council are currently expanding to reflect PABC’s international perspective.



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Six Paths to Flying Careers

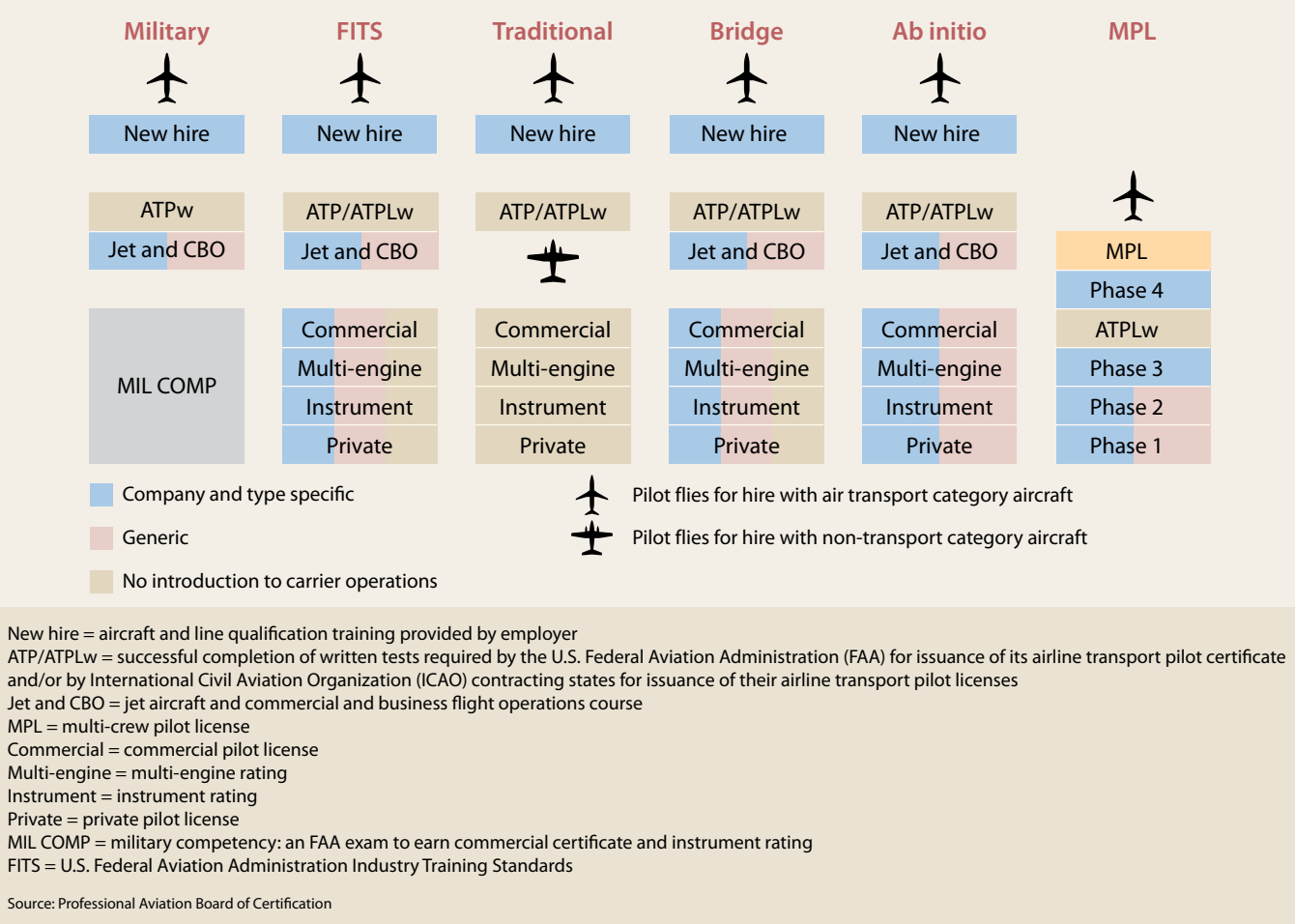


Figure 1

aspect of training in their curricula and marketing strategies. Employers, however, report an unbalanced result, with new hires often over-trained in advanced avionics yet lacking basic air-manship and instrument flying skills.

“We must confront these issues by creating a global training standard that is common among *all* training paths,” says Wolfe. “PABC also believes that developing and maintaining such a standard should be a collaborative effort by government agencies and industry stakeholders.”

Wolfe says that numerous aviation experts share this outlook, including executives, staff and members of the

International Civil Aviation Organization (ICAO), the International Air Transport Association, the International Federation of Air Line Pilots’ Associations, Transport Canada, the FAA, Airbus, Boeing, Alteon, CAE, Flight Safety Foundation, FlightSafety International, the Royal Aeronautical Society, airlines and collegiate aviation programs.

Failure Rate Up

Training managers from several U.S. organizations — who will speak only off the record, concerned that their remarks will erode customer confidence or alarm the public about the regional airline

sector — say that the failure rate among new hires has risen as the flight experience of new hires has been reduced. Over the years, the failure rate hovered around 5 to 10 percent, but today the rate at some regional airlines has topped 20 percent.

Yet looking at failures shows only part of the story, because candidates with a great attitude who struggle because of shortfalls in their pre-employment preparation are often given extra training rather than being washed out. Extra training, like wash-outs, is costly to employers.

Because airlines have not established an industry-defined specification

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“At Amway safety is our top priority. That’s why we’ve insisted on FlightSafety’s professional training for more than 30 years.”

RICH DEVOS

Amway co-founder, NBA Orlando Magic owner and chairman

Rich DeVos co-founded Amway Corp. in 1959 and acquired with his family the Orlando Magic in 1991. He continues to serve on his company’s board and travel to deliver his inspirational messages to independent Amway distributors and other audiences. He is the author of *Believe!*, *Compassionate Capitalism* and *Hope From My Heart: Ten Lessons for Life*, which was inspired by his heart transplant at the age of 71 in 1997.

After more than 80 years, Rich DeVos still looks forward to each day with the same “can do” attitude that propelled him to become one of the world’s most successful entrepreneurs. He was barely out of high school when he returned from overseas after service in World War II to start an aviation business with his friend Jay Van Andel. That business and other ventures together took off, and they eventually founded Amway from their homes in 1959. Amway within a few years was a household name, known for pioneering the sales of products through independent distributors. Today the company records over \$6 billion in annual sales in more than 80 countries.

Serving a growing global operation required fast, efficient world travel. Amway established a flight department and turned to FlightSafety for aviation training.

“We’ve been fortunate that Amway has enjoyed tremendous success,” DeVos says. “Success requires confidence and persistence and demanding the best of ourselves and others. That’s why our flight department insists on FlightSafety’s professional, safety-focused training for our jets and helicopters.”

The company’s belief in the many benefits and advantages of business aviation and the passion DeVos has for aviation continue today. He may have retired from the day-to-day responsibilities of running Amway, but his retirement hasn’t slowed him down. When he flies – which he does often as a business leader, philanthropist and speaker – his flight crews are FlightSafety trained. As far as he’s concerned, it’s the only way to go.

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for pre-employment training courses, distributed such a standard to training vendors, or created any sort of quality control mechanism, the range of course quality is wide. Some so-called bridge courses simply “teach the test” — how to pass an employer’s interview and flight check — while some others are poorly designed, taught or managed. The creation of a new baseline training standard will enable vendors, employers and students to compare cost and quality of course offerings against the performance of graduates.

MPL represents the most extensive update of pre-employment pilot training standards in over 40 years. MPL students do not earn private, instrument, multi-engine and commercial credentials. Instead, graduates must successfully complete a series of performance checks using various training devices and simulators, and must pass the airline transport pilot license written exam (ATPLw) or an equivalent test approved by the national aviation authority issuing the MPL license.

Until MPL programs are written, approved and implemented worldwide, the industry remains heavily dependent on the other five pilot career paths to fill work force requirements. Voss and Wolfe see an excellent opportunity for synergy during this transition, because both MPL and PABC support outcome standards for measuring the performance of pilot candidates.

The traditional metric for pilot evaluation, the flight logbook, while useful,

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Peter Wolfe,
PABC executive
director (left), with
FSF president
and CEO
William R. Voss.



J.A. Donoghue

is a poor measure of actual preparedness. “To be realistic, we’ll always have to look at flight hours, because experience plays an important role in this, but we have to pay attention to what really matters — the competencies that we’re trying to measure,” Voss says. “I think we’re much better now at developing the strategies to measure competencies than we were in the past, and we should go straight after that.”

As one part of such a system, PABC proposes that the ICAO standards and recommended practices (SARPs) be revised to encourage graduates of non-MPL training programs to take a common written exam to verify competence in prescribed subject areas.

Entry-Level Certificate

PABC’s first goal is to create a global training standard consistent with the outcomes prescribed for MPL graduates. As the pool of pilot applicants continues to be fed by hundreds of training vendors, an independent certification exam for graduates becomes critical to attaining and supporting a predictable, quantifiable performance standard.

PABC envisions a common credentialing exam by which pilots prove that they have attained the entry-level standards for knowledge and competency that are defined by industry stakeholders. The exam’s scope and

depth are expected to be greater than many of today’s licensing tests, and it will be upgraded regularly to keep up with changes in the industry. It will involve solving a number of scenario-based problems to assess the candidates’ ability to apply their knowledge in practical situations. The resulting credential will also help employers screen applicants, while the underlying performance standards will support the design of new-hire training curricula for non-MPL pilots.

“The pilot shortage doesn’t necessarily create a safety problem by itself unless we allow the shortage to compromise the level of competency that we require to operate an aircraft,” says Voss. “We must proactively oversee the industry to make sure that pilot demand is not forcing standards below a safe level. There is no reason that industry can’t come together to deliver a proposal to ICAO.”

Such cooperative efforts, Wolfe and Voss believe, could greatly shorten the time to bring about essential changes needed to ensure the quality of the pilot work force for global air transport of the future. ●

Constance Bovier is a longtime aviation writer with special interests in pilot training and career development.

Note

1. The organization’s Web site address is <www.pabc.aero>.