



# **AIRCRAFT MECHANICS FRATERNAL** **ASSOCIATION**

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## **Shortage of Aircraft Maintenance Technicians and Pilots Predicted for 2017-2034**

*By Bret Oestreich, National Director*

As global economies expand and airlines take delivery of tens of thousands of new commercial jetliners over the next 20 years, there will be unprecedented demand for people to pilot and maintain these airplanes. To meet this tremendous growth, the 2015 Boeing Pilot and Technical Outlook forecasts that between now and 2034, the aviation industry will need to supply more than one million new aviation personnel-558,000 commercial airline pilots and 609,000 aircraft maintenance technicians (AMTs). The decline in the number of trainees - both civilian and military - is creating what many see as a looming shortage of both pilots and AMTs.

There are currently more than 290,000 AMTs globally, only 24 percent of which are FAA-certificated. In the United States, there are 4,200 firms with more than 200,000 employees, which includes more than 145,000 AMTs. Approximately half are FAA-certificated.

Over the next decade, the world's major airlines are slated to add 20,444 planes, of which 17,390 are new technology aircraft, and to retire 10,311 older planes, according to Oliver Wyman's *Annual Fleet and MRO Forecast*. This will enlarge the global fleet by a net 10,133.

### National Director's Report



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By 2027, 58 percent of aircraft in-service will be comprised of fuel-efficient planes designed and produced since 2000.

Meeting this exponential demand for personnel will require innovative solutions that rely on the latest technology to match the learning requirements of a new generation. Tomorrow's AMTs need to be tech-savvy diagnosticians, something that was not even imaginable a few decades ago. The Oliver Wyman MRO Survey 2017 identified three emerging technologies vital for the next generation of AMTs: including composite material repair and manufacture (62%); collection and reporting of data for advanced analytics, big data, and predictive maintenance (51%); and the newest avionics and electrical systems (51%).

## Issues Contributing to AMT Shortage

The next generation of AMTs is dealing with issues that weigh heavily on their desire to pursue a career in aviation. Many have witnessed family members or friends unemployed due to company downsizing, airline mergers, overdue extended contracts, or other corporate decisions out of their control. Veteran and highly experienced AMTs have left the industry and moved into careers other than aviation.

We have also heard unfortunate comments from our peers such as, "Why would I tell my kids to work in aviation?"

There are competing career choices, many with promise of better pay, benefits, or job security - all are valid reasons for young people to be cautious when considering an aviation career. Additionally, there are fewer training schools available so AMTs are faced with increased costs for education and training.

Even after appropriate training and obtaining A&P certification as an aviation mechanic, the lure of higher-paying jobs in other industries is difficult for many to resist. The Aviation Technician Education Council (ATEC) estimates 30 percent of those who finish an aviation maintenance training course end up accepting employment in another industry.

Of the surveyed company executives, 64 percent say that their company expects to hire AMTs over the next three years to expand the workforce; 23 percent claim they will hire simply to maintain their numbers; and 13 percent are planning to allow their AMT workforce to shrink. Already, a majority of Wyman's survey respondents (78%) report that it is getting harder to hire AMTs and the tightening labor market is pushing them to rely on overtime and

other stop-gap efforts to keep up with market demand. The survey did identify community colleges and universities with FAA and EASA approved programs as the highest ranked sources for qualified candidates. The next highest ranked sources are either the military or business aviation, as well as Fixed Base Operators.

The anticipated retirement of the aging AMT workforce could not come at a worse time as the industry gears up to accommodate the larger and newer fleet. The retirement of many baby boomer AMTs is expected to create expertise gaps in critical areas as the industry finds itself having to service a fleet that by 2027 will be almost equally divided between older and newer technology aircraft. While the industry requires new skills, it also will continue to require those who are familiar with older, less digitally sophisticated technology - planes that after 20 years in service are apt to require more maintenance, not less. If older aircraft can get phased out quickly, that could simplify training and make it easier to focus resources on the newer planes.

The projected fleet revitalization is expected to prove problematic for the MRO industry. Many providers continue to rely on systems designed for 20th century planes and depend on a shrinking workforce that often lacks the necessary training in systems and components of newer aircraft, such as composite materials and next-generation avionics. Trainers will thus focus on enabling airplane operators to gain optimal advantage of the advanced features of the latest generation of airplanes, such as the 787 Dreamliner, 737 MAX, and the 777X. Additionally, instructors will need to have cross-cultural and cross-generational skills to engage tomorrow's increasingly diverse aviation workforce.

In the near term, airlines will continue to focus on operational reliability, at the possible expense of turnaround times for scheduled maintenance and components. Future prospect for rising maintenance costs and an increase in turnaround times (TAT) for scheduled maintenance. In response, airlines are likely to retain more spare aircraft as a backup for potential servicing delays. If older aircraft can get phased out quickly, that could simplify training and make it easier for MROs to focus resources on the newer planes. There will also be fewer shops forced to run new-generation platforms - and the systems, programs, and training that go with them - alongside those for older aircraft.

Other top industry disruptors identified by the survey include changes to fleet plans and strategies (57%) and growth in the aftermarket presence of original equipment manufacturers (OEMs) (56%).

Respondents to Wyman's survey indicated their organizations expected hiring demands for AMTs in the next three years:

**64% will hire to increase** the current headcount of maintenance technicians

**23% will hire to maintain** the current headcount of maintenance technicians

**10% will reduce headcount** of maintenance technicians through attrition

**3% will reduce headcount** of maintenance technicians through layoffs

This labor shortfall may be felt the soonest in Asia where the biggest portion of fleet expansion is taking place.

In the United States, where minimal overall growth is expected, the anticipation is that the real labor crunch will hit five to seven years from now, when supply and demand equalize. Similar to practices used to entice other highly skilled positions like engineers and pilots, the industry will have to tailor new incentives to expand and protect the technician pipeline, raise the desirability of working in aviation maintenance, and recruit across a broader demographic, especially given the competition for workers with other technologically intensive industries.

These shortages combined with increased airline profits will begin to be reflected positively in the pay and benefits packages offered to AMTs.

***Sources used:***

Forbes.com

<http://www.forbes.com/sites/johngoglia/2014/01/04/2014-outlook-for-aviation-careers-brightens-with-looming-pilot-and-mechanic-shortages/#4f666ebc20ff>

Boeing.com

<http://www.boeing.com/commercial/market/long-term-market/pilot-and-technician-outlook/>

Aviationpros.com

<http://www.aviationpros.com/article/10744152/aircraft-maintenance-technician-outlook>

Oliver Wyman MRO Survey 2017

<http://www.oliverwyman.com/content/oliver-wyman/ow-v2/en/our-expertise/insights/2017/apr/mro-survey-2017.html>

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