

# The young ones

Robust demand: AAR has around 3,000 direct and indirect technician roles worldwide.



**The global aviation industry is facing major shortfalls in maintenance personnel as workers retire and leave the industry. Emma Kelly looks at what needs to be done to attract and retain the next generation of aerospace mechanics.**

**A**s airline operations around the world return to pre-pandemic levels, the maintenance, repair and overhaul (MRO) demand is correspondingly increasing.

The global operational fleet is now at 98% of where it was in January 2020, with 27,400 aircraft in operation, according to the Global Fleet and MRO Market Forecast 2023-2033 published in late February by global management consulting firm Oliver Wyman.

By 2033, the worldwide commercial fleet is expected to expand by 33% to more than 36,000 aircraft – with a compound annual growth rate of 2.9%.

In order to keep this fleet flying, the global MRO sector is expected to grow another 22% this year, following an 18% growth in 2022, with MRO spending predicted to be US\$125 billion by 2023, according to Oliver Wyman.

This is all very positive for the MRO industry, but there is a major obstacle in the way, and one that the MRO sector is not alone in facing – a labour shortage.

“While aviation is most assuredly on a growth trajectory after a devastating two years of losses, it’s currently carrying a lot of baggage that can’t be easily checked,” the report says.

It also highlights the “tight labour market” facing all regions and all aspects of aviation.

Oliver Wyman says the issue is primarily a North American problem, but other regions will “feel the squeeze” when the fleet and demand surpass previous peaks.

In North America, aircraft mechanic supply is “on the cusp of a shortage that will manifest itself this year once the sector recovers beyond 2019 levels”, the report says, adding: “In 2023, we expect to see a shortfall of more than 12,000 – or 14% of



the total mechanic workforce in North America. And the problem of too few mechanics will plague MRO through 2033. The peak of this regional shortfall is projected for 2027 when the gap could extend beyond 40,000 mechanics.”

The global aviation maintenance industry was facing a shortage of certified mechanics before COVID-19. But the pandemic made the situation a whole lot worse, resulting in early retirements and people leaving the industry.

In its Not Enough Aviation Mechanics Report, which focuses on North America, Oliver Wyman says the shortage will “threaten aviation’s ability to grow profitably if it remains unaddressed”, with the situation affecting everyone from the smallest MRO to the largest airline, but with independent MROs and regional airlines likely to feel the effects the most.

## LEADING THE CHARGE

MROs on the front line appreciate the extent of the looming crisis and are addressing it.

AAR has approximately 3,000 direct and indirect technician roles worldwide, the vast majority in the US.

“Like the rest of the industry, we face challenges with this talent shortage,” says Ryan Goertzen, Vice President, Aviation Workforce Development.

In 2018, AAR established the Eagle Career Pathway Program, initially with Western Michigan University, to help grow the aviation technician pipeline for the future – a move that has already proven beneficial. The programme has expanded to eight schools across the US.

“We continue to identify innovative approaches to attracting more students to aviation careers, such as creating aviation sheet metal programmes to expedite the process of beginning a career and launching our AAR Fellowship Program to offer tuition support and hands-on experience,” says Goertzen.

AAR also works closely with the non-profit organisation Choose Aerospace, which offers a high school aviation curriculum

based on FAA certification standards, with 200 students enrolled in the curriculum across 14 schools.

AAR experiences “unique labour shortages” at all of its locations and modifies its approach accordingly, says Goertzen.

In Illinois, for example, AAR is working with the state authorities on a workforce grant programme to develop local talent. It is also working with Embry Riddle Aeronautical University to launch the first maintenance SkillBridge Program to attract exiting service members.

AAR also worked with the US Department of Labor to create a National Apprenticeship Program, which was approved in February 2021.

“Our first group of 25 that enrolled across AAR’s four US-based MROs graduated in January,” says Goertzen, adding that there are approximately 150 employees currently participating.

## MOVING MARKETS

Lufthansa Technik (LHT), which employs more than 20,000 people worldwide, has had to be proactive and resourceful when it comes to filling its labour demands.

The personnel market has turned into an employee market, says Dr. Frank Bayer, VP of People at Lufthansa Technik Group, forcing it to use headhunters for some specialist areas.

LHT is also facing “an insanely long and arduous bureaucratic process” to bring people to Germany to work for them from other countries, says Bayer.

Following the pandemic, LHT’s apprentice training is returning to 2020 levels, with 186 apprentices and 23 dual students (school graduates who combine their degree courses with practical work) starting at LHT’s German locations in August 2022.



Above and top, Lufthansa Technik is fully committed to apprentice training.


For the start of training in August 2023, LHT is looking for approximately 250 apprentices and about 60 dual students, says Bayer.

The company has adopted some new ways to attract young people, including visual advertising in print, online and social media channels, on public transport and fast food restaurants under the slogan “We are Aviationers”.

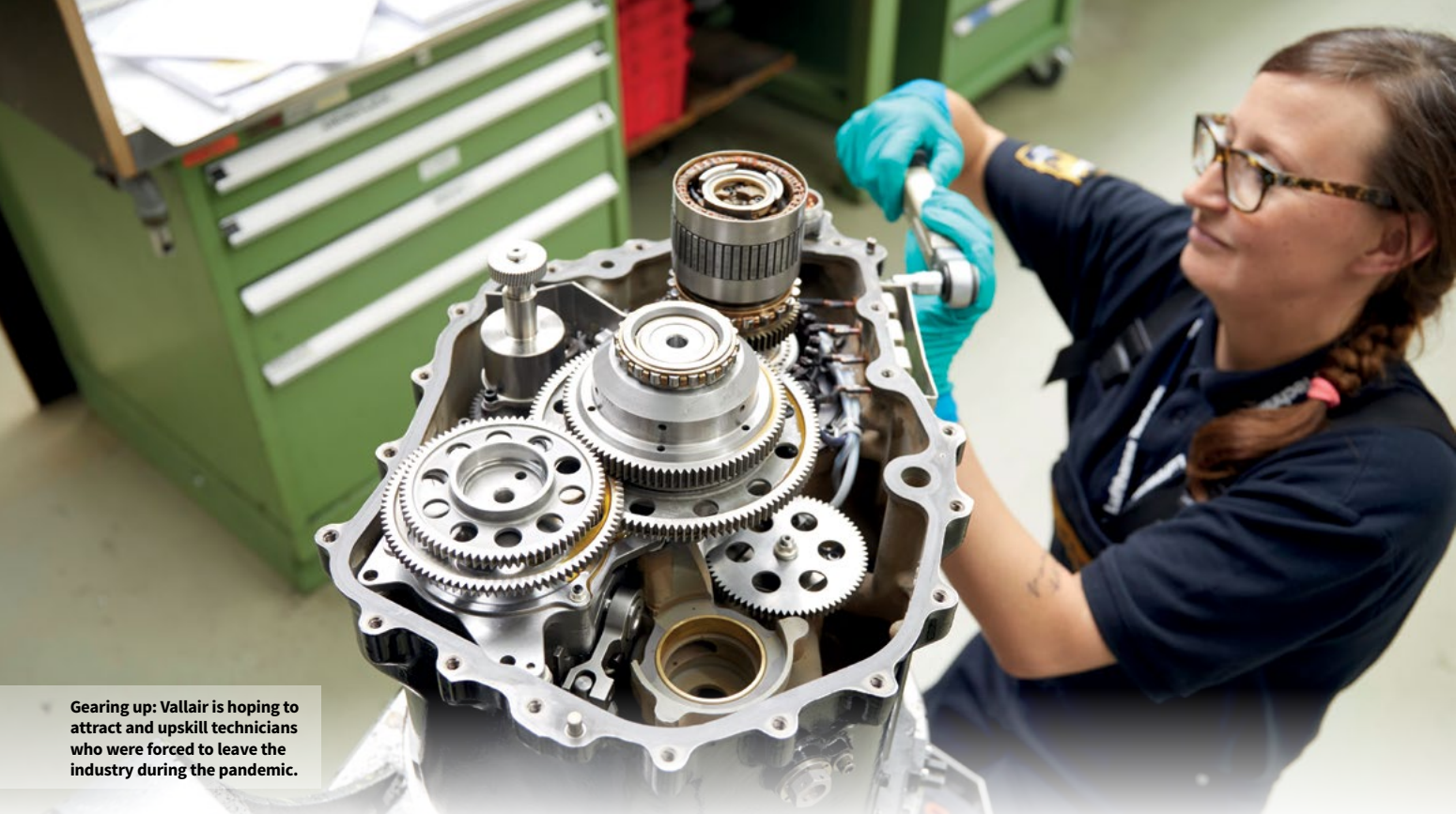
It has also established projects with schools and universities, offering internships, attending job and trade fairs, and inviting schools to visit its Hamburg base.

Partnerships also extend beyond the company’s bases in Germany to its international locations. In Singapore, for example, Lufthansa Technical Training has a long-running partnership with Temasek Polytechnic to provide aircraft technical training.

LHT has increased its training capacity, including opening a new engine training centre in Hamburg. This year alone, some 376 new employees will undergo training at the centre.

Trainees, who have already completed a technical or trade apprenticeship in another field, will be able to take on independent tasks in the workshops after just four to six months of training at 





**Gearing up:** Vallair is hoping to attract and upskill technicians who were forced to leave the industry during the pandemic.

the centre, says Bayer, with trainees being courted from all walks of life.

He tells *LARA*: “Over the next five years, more than 1,000 new colleagues, who were originally trained for example as carpenters, automotive mechanics or dental technicians, will be qualified to repair the latest engine technologies.”

### UPSKILLING THE INDUSTRY

Fellow European MRO Vallair faces the daily challenge of recruiting and retaining good people, says director Armel Jezequel. The French company currently employs 130 permanent technicians and mechanics at its narrowbody maintenance and paint facility in Montpellier and its Châteauroux widebody maintenance and conversion facility, supplementing with 15-30% extra personnel when needed.

Vallair seeks to attract talent at industry forums and events, as well as through school and college career programmes. “We have close relationships with schools and colleges in France and several long-term partnerships,” says Jezequel, with a focus on local recruitment drives.

Last year, Vallair invested in French training organisation Aircraft Academy, which provides online and classroom-based training for Airbus and Boeing aircraft engineers and mechanics, with plans to train 300 aircraft technicians over five years.

Jezequel says: “Since we invested in Aircraft Academy last year and opened up our new educational facility with on-site practical training in Châteauroux, we have broadened our network and plan to expand across Europe.”

Vallair is training mechanics, technicians, production strategists, engineering services managers and technical support personnel, with 70 people recruited last year and 80 positions available this year.

“Our plan is not only to train people for Vallair, but also build a centre of excellence that airlines and MROs can access,” says Jezequel.

Vallair is hoping to attract and upskill mechanics and technicians who were forced to leave the industry during the pandemic, with not all countries and companies able to offer income support schemes.

“These excellent people, who could be in their 40s or 50s or 60s, need to refresh their skills to re-enter the workforce and return to the industry,” says Jezequel.

Vallair and the Aviation Academy are providing opportunities to upskill, including courses to obtain type ratings for the Airbus A320neo and Boeing 737 MAX.

“We are also introducing a fast-track programme for mechanics wanting to switch from the A320 to A330, that will create a really interesting dual-skilled workforce,” Jezequel says.

### PULLING TOGETHER

Collaboration is vital in order to address the crisis, MROs agree.

Industry needs to work with governments, education bodies and the local community to get results, says AAR’s Goertzen.

He points, for example, to AAR’s work with the State of Illinois to create a pipeline to its Rockford facility, which demonstrates what’s possible when “everyone is rowing in the same direction”.

He says: “We evolved from struggling to staff the facility, with 85 employees in 2018, to a staff of 350 in just 18 months. We achieved this through a multi-faceted approach that included the state government, local government, airport director, non-profit organisations and the local community college.”

A grant from the State of Illinois enabled AAR to fund mentors, as well as capital improvements for the college, including the purchase of a Bombardier CRJ-200 for use in technician training.

But Goertzen says more work is needed “to introduce this incredible six-figure career to students, parents, educators and counsellors”.

Vallair’s Jezequel agrees: “Parents, teachers, career advisers all have a role to play too – a vocational path is a great direction to take for young people.”

He adds: “We are suffering from the legacy

of a trend that was set in place around 25 years ago when manual labour was equated to low skills or poor education, thus socially inferior. We have to ensure the new generation understands, values and learns hands-on skills of a high calibre.”

LHT’s Bayer concurs that the industry is feeling the effect of the “academisation” trend whereby students focus on university.

“We need a new narrative giving children the confidence that professional success and a good salary go hand in hand with a completed apprenticeship and not just with a degree,” he says.

Finding out what members of Generation Z want from a job and providing the right environment is crucial.

“We undertake a variety of efforts to offer young people a great working environment,” says Bayer, who points to ways for them to connect through events and gaining feedback, at the same time allowing the MRO to gain new perspectives through reverse mentoring, keynote speeches on how Gen Z sees professional life, development paths and the work-life balance.

LHT also offers young talent the ability to explore the world through training at its overseas stations.

Aviation’s mission towards zero emissions, with new aircraft, technologies and fuels, should be attractive to the next generation, Vallair’s Zezequel believes.

“We have to build a whole new industry,” he says. “That’s exciting – young people care about the environment and they want to work in a field that offers equal and diverse opportunities and aviation offers that.

“Today’s 20- to 25-year-old maintenance people will work on new-generation aircraft and implement new technological advances. They will be able to do this all over the world with recognisable and transferable skills.

“If we can instil a passion for aviation, it is a career for life with fantastic opportunities and great rewards.” ■

## A global issue

Far from being limited to one geographical area, the licenced aircraft maintenance engineer (LAME) shortage is global, reaching as far south as Australia.

The Regional Aviation Association of Australia (RAAA) says all aviation sectors are affected on a daily basis, with regional areas particularly badly hit, threatening local air services.

In its “Aircraft maintenance engineer shortage – crisis and opportunities” report, the RAAA says the LAME shortage is now at crisis point – and if it is not addressed immediately, the continuing airworthiness of the Australian aircraft fleet will be significantly compromised.

It notes that since 2014 there has been a rapid decline in the apprentice intake, following changes to apprenticeship training and the licensing pathway. Since 2016, an average of just 135 aircraft engineer licences have been issued, as opposed to an average of 297 in each of the 10 years prior.

Aircraft engineering provides an exciting,

challenging and rewarding lifelong career, says the report, particularly with the predicted growth in future aircraft types, the growth of uncrewed aircraft operations and advanced air mobility.

The report highlights seven areas of recommendations, calling for international LAME licences to be recognised and for aircraft engineering to be added to the Federal Priority Migration Skilled Occupation list.

In addition, education is required to support current and future LAMEs, with a lack of understanding around the current licensing pathway due to its complexity, despite its introduction 11 years ago.

Australia also needs to create a pathway for other experienced engineers, including ex-defence force personnel, while CASA needs to remove the challenges associated with the current Diploma in Aeroskills examinations.

The RAAA also calls for government incentives to employ aviation apprentices and the creation of a National Aviation Academy for apprentices.

**Solutions: Australia’s RAAA says the shortage of licenced aircraft maintenance engineers has reached crisis point.**

