



# TEARDOWN'S WORKFORCE TEST

With aircraft disassembly activities accelerating worldwide, the industry faces a critical question: does it have the workforce, training structures and knowledge transfer in place to keep pace?

**A**ircraft teardown has become a fast-growing segment of the aviation MRO ecosystem. With ageing fleets, persistent supply chain constraints and strong demand for serviceable used material (USM), dismantling end-of-life aircraft has evolved into a strategically important part of the global aviation supply chain.

Yet as the sector expands, teardown specialists are encountering the same workforce pressures facing the wider maintenance industry. Skilled technicians with the experience to dismantle aircraft safely, protect asset value and ensure full regulatory traceability remain in short supply.

For companies operating in the teardown market, the implications extend beyond recruitment challenges. Workforce capability directly influences turnaround times, parts certification processes and the efficiency with which components re-enter the aftermarket supply chain.

## **Experience remains the backbone of teardown**

Steven Trowell, senior vice president maintenance and disassembly at EirTrade Aviation, says the biggest stress lies in securing technicians who fully understand the complexities of controlled aircraft disassembly.

“At EirTrade Aviation, the greatest pressure that we are facing with skills today is ensuring we recruit and retain enough experienced technicians who understand how to carry out controlled disassembly while protecting asset value and maintaining full traceability,” he explains.

“It’s important to realise that aircraft teardown is not simply reverse assembly. Every aircraft platform has its own maintenance history, configuration differences and conditions, and understanding those variables demands in-depth practical experience and sound technical judgement.”

Unlike production environments where processes can be standardised around repeatable workflows, teardown work often involves unpredictable variables. Aircraft arriving for disassembly may have decades of operational history, undocumented repairs or configuration changes that complicate removal procedures.

Trowell warns that when those specialist skills are stretched, “turnaround times and capacity planning can be impacted, particularly when multiple aircraft are inducted for disassembly at the same time. Experienced oversight is absolutely essential to avoid secondary damage or documentation gaps.”

Trowell adds: “For EirTrade Aviation, the priority is ensuring components are removed, handled and documented correctly so our team can move components efficiently into the next stage of the supply chain without delay.”

**Global technician shortage hits teardown**

The skilled workforce challenge is echoed across the wider teardown ecosystem. Valentina Pilshchikova, engines and parts sales trading manager at Vallair, says the shortage of licensed technicians is already influencing project timelines across the sector.

**“AS OUR OLDER GENERATION OF ENGINEERS RETIRES, STRUCTURED KNOWLEDGE TRANSFER BECOMES ESSENTIAL”**

*Steven Trowell, senior vice president maintenance and disassembly, EirTrade Aviation*

“Across teardown, inspection and certification, Vallair can see the main pressure today is focused on securing experienced and licensed aircraft technicians,” she says.

“The lack of incoming qualified personnel and increasing demand worldwide for technicians doesn’t help. As a result, the turnaround times are much longer due to less experienced workers requiring additional supervision and development. We are seeing increased lead times across the market.”

To mitigate this pressure, Vallair is investing heavily in internal training initiatives. “We are doing our best to manage this situation effectively and are investing in training newcomers accordingly at our Aircraft Academy to help strengthen capability and reduce delays,” says Pilshchikova. However, she notes that building expertise in this highly specialised field is a long-term undertaking.



▲ Steven Trowell, senior vice president maintenance and disassembly, EirTrade Aviation

◀ Dismantling end-of-life aircraft has evolved into a strategically important part of the global aviation supply chain



Naveo is a boutique aerospace consultancy dedicated to serving the needs of global clients, large and small. Highly responsive and backed by timely, relevant thought leadership and in-house intellectual property. We support revenue growth and business optimization across the production value chain - from raw materials to operators and financiers - and aircraft lifecycle - from entry-into-service to retirement and part-out. Our team is led by the experienced aerospace management consultant, Richard Brown

Naveo provides fresh, dynamic, and relevant advice to help you understand the critical issues that impact revenue growth, efficiency savings, and strategic options



<ul style="list-style-type: none"> <li>▶ Strategy &amp; growth planning</li> <li>▶ Market assessment and trends</li> <li>▶ OEM &amp; aftermarket forecasting</li> <li>▶ Engine, components, airframe, line and modifications markets</li> <li>▶ Aircraft retirements &amp; used serviceable material (USM)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Transaction advisory due diligence</li> <li>▶ Acquisition search</li> <li>▶ Value proposition research, design, and testing</li> <li>▶ Big data and connectivity, aircraft health monitoring, prognostics and diagnostics</li> <li>▶ Customer satisfaction</li> </ul>
---	--



Air Transport



Business Aviation



Rotary Wing



Military Aviation

Get in Touch

M +44 (0)7718 893 833  
T +44 (0)207 867 3782

[richard@naveo.com](mailto:richard@naveo.com)  
[naveo.com](http://naveo.com)



1



2

**“WORKFORCE CAPABILITY DIRECTLY INFLUENCES TURNAROUND TIMES, PARTS CERTIFICATION PROCESSES AND THE EFFICIENCY WITH WHICH COMPONENTS RE-ENTER THE AFTERMARKET SUPPLY CHAIN”**

- 1. Vallair’s Aircraft Academy provides training for its own employees, outside contractors, airlines, MROs and military organisations
- 2. Vallair’s quality department ensures that all processes are carried out in accordance with established procedures

“Our highly skilled senior teams in the aerostructures and engine shops are committed not only to delivering exceptional and efficient turnaround times, but also to sharing their extensive experience and expertise with the next generation,” she says. “However, developing a fully qualified and motivated professional takes several years. For this reason, we do not expect to see substantial improvements before 2028-2030.”

**Knowledge transfer becomes mission critical**

The ageing workforce profile across maintenance is particularly pronounced in teardown operations, where many technicians developed their skills during earlier aircraft programmes.

For teardown specialists, the departure of experienced engineers presents a serious risk if knowledge transfer is not managed systematically.

Trowell says EirTrade Aviation has made this a core focus at its engine and airframe teardown facilities in Knock, Ireland West Airport. “As our older generation of engineers retires, structured knowledge transfer becomes essential,” he explains.

“Much of the expertise in safe removal, corrosion identification, structural sensitivity and damage avoidance has historically been built over decades.”

Unlike many maintenance environments, teardown offers little room for learning through trial and error. Trowell says: “Aircraft and engine dismantling is hands-on, and mistakes are expensive. You cannot afford trial-and-error learning on high-value assets. So, knowledge transfer has to be deliberate and embedded within our workflow.”

At EirTrade Aviation, this involves matching up experienced engineers with newer hires on active disassembly projects, ensuring technical procedures are standardised and providing clear escalation pathways when problems arise.

Trowell explains that digital workflow systems are also playing a growing role. “We have found that digital workflow tools can help reduce reliance on undocumented ‘historical know-how’.

“With methodical, strategic ordering of all disassembly tasks, we can maximise the value, safety and efficiency of recovering components from an end-of-life aircraft, which is EirTrade Aviation’s primary objective.”

**Training the next generation**

Pilshchikova agrees that structured training programmes are essential to addressing the sector’s demographic imbalance. “The ageing workforce is a challenge, particularly in a teardown,” she explains. “This creates an inverted age pyramid, as we have an over-representation of employees above 50 compared to those under 30.”

**“OUR HIGHLY SKILLED SENIOR TEAMS IN THE AEROSTRUCTURES AND ENGINE SHOPS ARE COMMITTED NOT ONLY TO DELIVERING EXCEPTIONAL AND EFFICIENT TURNAROUND TIMES, BUT ALSO TO SHARING THEIR EXTENSIVE EXPERIENCE AND EXPERTISE WITH THE NEXT GENERATION OF PROFESSIONALS”**

*Valentina Pilshchikova, engines and parts sales trading manager, Vallair*



▲ Valentina Pilshchikova, engines and parts sales trading manager, Vallair

However, she argues that the teardown sector can benefit from actively integrating senior expertise into formal training structures. “Compared to many other MROs, Vallair is open to hiring senior technicians. Our Aircraft Academy trains for our own employees, outside contractors, airlines, MROs and military organisations.”

The Academy uses experienced instructors to develop tailored programmes that match specific operational requirements.

According to Pilshchikova, mentorship remains central to effective skills development. “Effective training delivered by competent mentors allows learning without risking errors and ensures new technicians are fully qualified and ready to work safely and efficiently.”

“Structured procedures developed by experienced teardown technicians ensures effective knowledge transfer which can be used by newcomers,” she says.

**Automation to support, not replace**

As workforce shortages intensify, the use of digital and automation tools is being explored to help optimise workflows and reduce administrative burdens.

Trowell believes there is considerable scope for technology to enhance operational visibility. “We see significant scope for automation and digital enhancement across a wide range of disassembly tasks, including project scheduling and material tracking, barcode or RFID-based inventory

AVIATION WEEK

# MRO

AMERICAS

# 30

YEARS

**April 21-23, 2026**  
Orlando, FL • #MROAM

**Featured Sessions**

- AI: The Can-Do Panel
- Tariffs: Industry Impact
- Skill Shortage Solutions
- Predictive Maintenance

**New for 2026**

- TechHub Arena
- Curated Meet-Up
- Frequent Flyer Program
- 30th Anniversary Surprises!

## SOURCE 1,000+ SOLUTION PROVIDERS.

Discover New Technology, Tools and Services.

[mroamericas.aviationweek.com](http://mroamericas.aviationweek.com)

by informa\*\*\*



1



2

**“AS WORKFORCE SHORTAGES INTENSIFY, THE USE OF DIGITAL AND AUTOMATION TOOLS ARE BEING EXPLORED TO HELP OPTIMISE WORKFLOWS AND REDUCE ADMINISTRATIVE BURDENS”**

1. EirTrade Aviation says a stress lies in securing technicians who fully understand the complexities of controlled aircraft disassembly  
 2. Aircraft and engine dismantling is hands-on, and mistakes are expensive

management, digital records management and document control, workflow tracking and task sequencing, and data analytics to optimise teardown planning.”

However, he underlines that automation cannot replace the technical judgement required during physical disassembly.

“It is important to stress that although a certain amount of automation can improve visibility and reduce administrative resistance, aircraft teardown itself is not a straightforward production line,” he says.

“Every airframe or engine asset has a different history, configuration and condition. We know at EirTrade Aviation just how critical experienced judgement remains when dealing with corrosion, structural stress areas or incomplete documentation.”

Trowell adds: “Human expertise is essential for accurate damage assessment and to

ensure timely, safe and trusted structural disassembly, engine teardowns and major component removals.”

Pilshchikova echoes this view, suggesting that automation is best suited to repetitive inspection tasks.

She says: “Repetitive, measurable and standardisable tasks are well suited to automation. As an example, measuring dimensions and compiling standard reports can be efficiently automated. However, analysing unusual findings, evaluating material corrosion and making safety decisions still requires human expertise.

“I am all for modern innovations – if a robot can take measurements or scan the cracks and all this information can be uploaded quickly into the system without coffee breaks, I say let it happen,” she continues. “However, when it comes to spotting tricky issues or making a final decision – human expertise remains pre-eminent.”

Pilshchikova goes on to explain that Vallair’s quality department ensures that all processes are carried out in accordance with established procedures, and that innovation and compliance go hand-in-hand.

She says: “It has often been demonstrated that AI can make mistakes. Human experience and expertise needs to be able to challenge the results so correct decisions can be taken.”

► EirTrade Aviation says its greatest pressure with skills today is ensuring it recruits and retains enough experienced technicians

**A sector at a turning point**

Looking ahead, Pilshchikova believes workforce constraints will remain one of the defining challenges for the teardown sector.

“Over the next five years, the biggest challenge for teardown and recycling activity will be workforce shortages,” she says. “This could slow down the scaling of teardown and recycling operations, delaying aircraft part recovery and increasing costs.”

Yet she also sees the pressure as a catalyst for transformation. “At the same time, this challenge pushes us to transform the way we work, to move away from manual and adopt more automated processes, improving efficiency and safety.”

The evolving design of modern aircraft will also require the workforce to adapt. Composite structures, for example, demand new dismantling techniques and specialised tooling.

“With the first teardowns of the Boeing 787, it is evident that dismantling a predominantly composite aircraft presents different challenges compared with traditional metal aircraft,” Pilshchikova explains. “These differences require new skills, adapted tooling and more advanced processes, making modernisation not just an opportunity, but a necessity.”



For the teardown sector, while digital tools and new processes will help reshape operations, the industry’s ability to scale sustainably will ultimately depend on developing the next generation of skilled technicians capable of handling the complex art of aircraft disassembly. ●

# YOUR HANGAR HAS MORE POTENTIAL MORE AIRCRAFT. SAME HANGAR.

**VISIT US ...**

**MRO AMERICAS**

MRO Americas  
April 21–23 2026  
Orlando, FL / USA  
N-S Hall | 2719

**SAHA 2026**

SAHA 2026  
May 05–09 2026  
Istanbul  
Hall: 1 | Stand: TC-12c

**„We can accommodate more aircraft in the same hangar – just by using Mototok“**

Denis Velic,  
Base Maintenance Manager, Adriatehnika  
[bit.ly/dennis-velic](https://bit.ly/dennis-velic)

**Mototok towbarless tugs help MRO operators position aircraft precisely, safely and efficiently — while maximizing valuable hangar space.**

→ Towbarless precision maneuvering → One-person operation → Lower risk of positioning damage  
→ Better use of hangar capacity → Electric, clean and efficient

**Contact:** Mototok International GmbH (Headquarter Germany) · Mototok Corporation (USA)  
[info@mototok.com](mailto:info@mototok.com) · [www.mototok.com](http://www.mototok.com) · [f](#) [in](#) [v](#) [@](#)

**We've got you covered! Sales and Service in Europe, North America, Asia and Australia.**

**mototok**  
easy moving

Innovative remote controlled electric-drive tugs