

Aircraft Maintenance Training For The Next Generation

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Agenda

Current state of play

Opportunities & limitations

Industry examples

Takeaways



Recruiting, qualification and retention is more crucial than ever for the aviation aftermarket

- Aging workforce, dynamic operations, employee fluctuation
- Predicted shortfall of 250.000 skilled aircraft mechanics over the next decade in Asia-Pacific*
- Valuable skills and experience need to be replaced
- Millennials and moreover **Generation Z** will be the focus to close the gap



* Aviation Week Network, September 22, 2022



Do we need **a new approach**
for a highly skilled and versatile
future generation of aircraft
technicians?



Generation Z expect technology to play a vital role during their learning and qualification path

> 2 billion

Gen Z
globally

25 %

of APAC workforce
will be Gen Z by 2025

**1st
True Digital
Natives**

45%

of Gen Z teenagers are online
“almost constantly”

87 %

play video
games weekly

43%

expect
self-directed learning

Generation Z: generally defined as the people born between 1995 and 2010
Source: McKinsey & Company; June 29, 2020



Organizations are urged to develop training concepts that take into account new learning behavior...



Enable Mobile Accessibility

- Learning Management System
- Online Course Material
- Tools



Provide Video Solutions

- Video Tutorials
- Learning Nuggets
- Micro-Teaching



Invest in Simulations

- Maintenance Simulators
- VR / AR Solutions
- Enable Experience



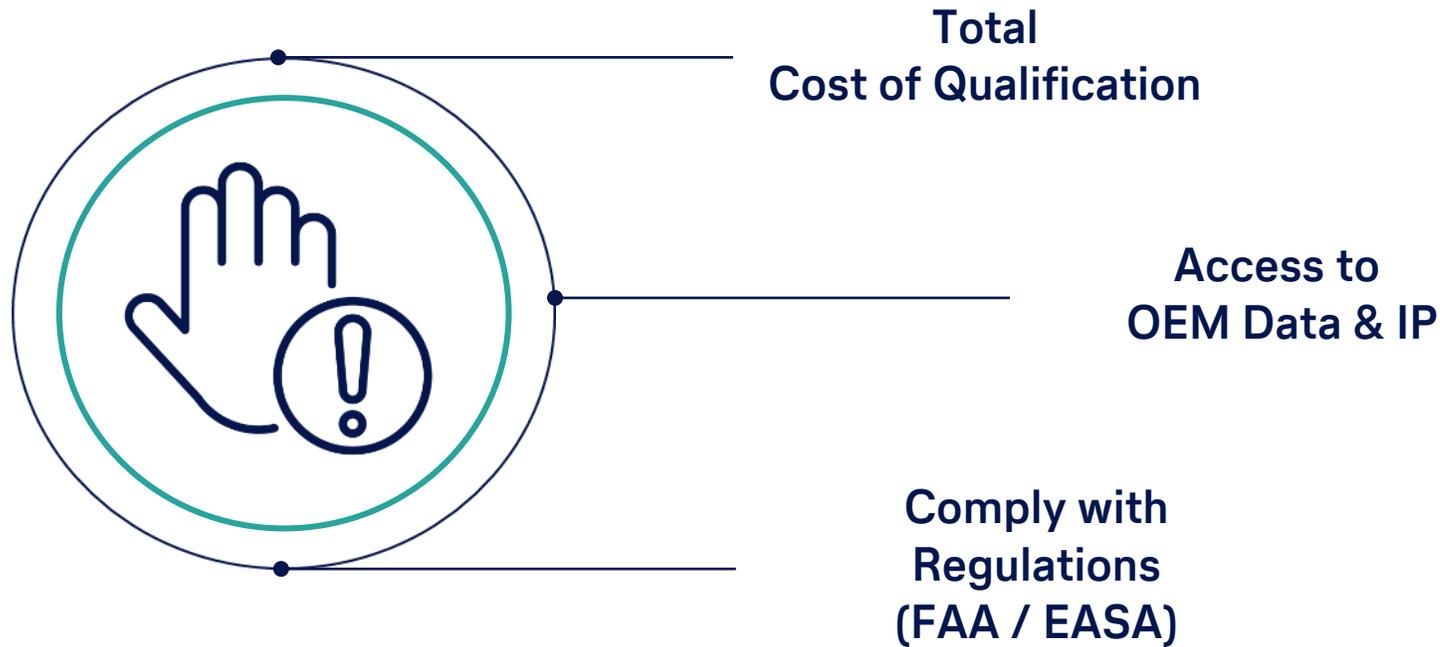
Collaborative Learning

- Online Distance Learning
- Tutorials
- Working Groups

Permanent tutoring is still key to ensure build up of competences and knowledge transfer



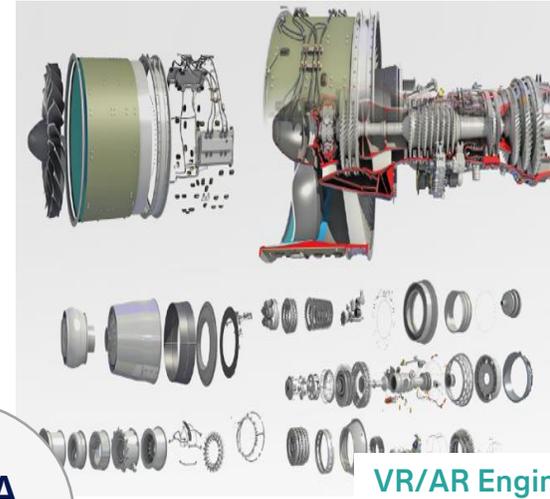
However, limitations in designing and implementing digital training concepts need to be taken into account



Maintenance training should be based on a modern media suite focused on fulfilling learning objectives



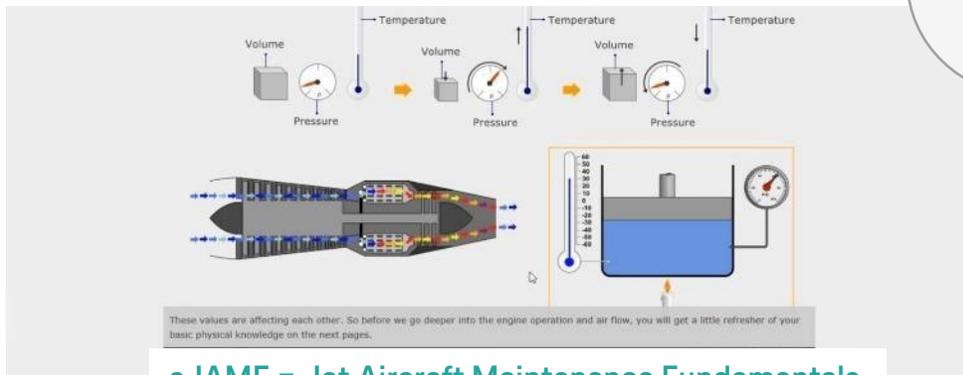
360° Viewers A/C & Engines



VR/AR Engine Basics



MEDIA SUITE



eJAMF = Jet Aircraft Maintenance Fundamentals



Video Tutorials

All applications provide tangible benefits for the trainees and the instructor – delivering high training quality

Example 360° Viewer

- Reasonable cost of production
- Reducing aircraft availability **by more than 5 days**
- Full online and offline application – enabling tutoring and self-paced learning
- Embedded video nuggets for system and process descriptions
- Provides gamification opportunities for trainees
- Officially approved by the regulator



Qualifying and retaining talents for aircraft maintenance will require that we adopt steadily our training methods

- **YES**, we do need a new approach in training methods
- Keep the learning objectives in the focus
- Invest in simulations at **reasonable total cost of qualification**
- Immersive technology becomes cheaper and better (e.g. haptics) – new opportunities arise
- **Foster digital literacy** within your organization





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