

Aircraft Maintenance Training For The Next Generation

Modern Training Concepts



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 > 40.000 skilled aircraft mechanics by the end of this decade in North-America*
- Valuable skills and experience need to be replaced
- Millennials and moreover Generation Z will be the focus to close the gap



* Oliver Wyman: "Not Enough Mechanics" ; Risk Journal Volume 7



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

30 %

of US workforce
will be Gen Z by 2023

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: [financesonline.com/generation-z-statistics](https://www.financesonline.com/generation-z-statistics/); US Bureau of Labour Statistics; Pew Research Center 2019; Forbes.com

Training for the NextGeneration

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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



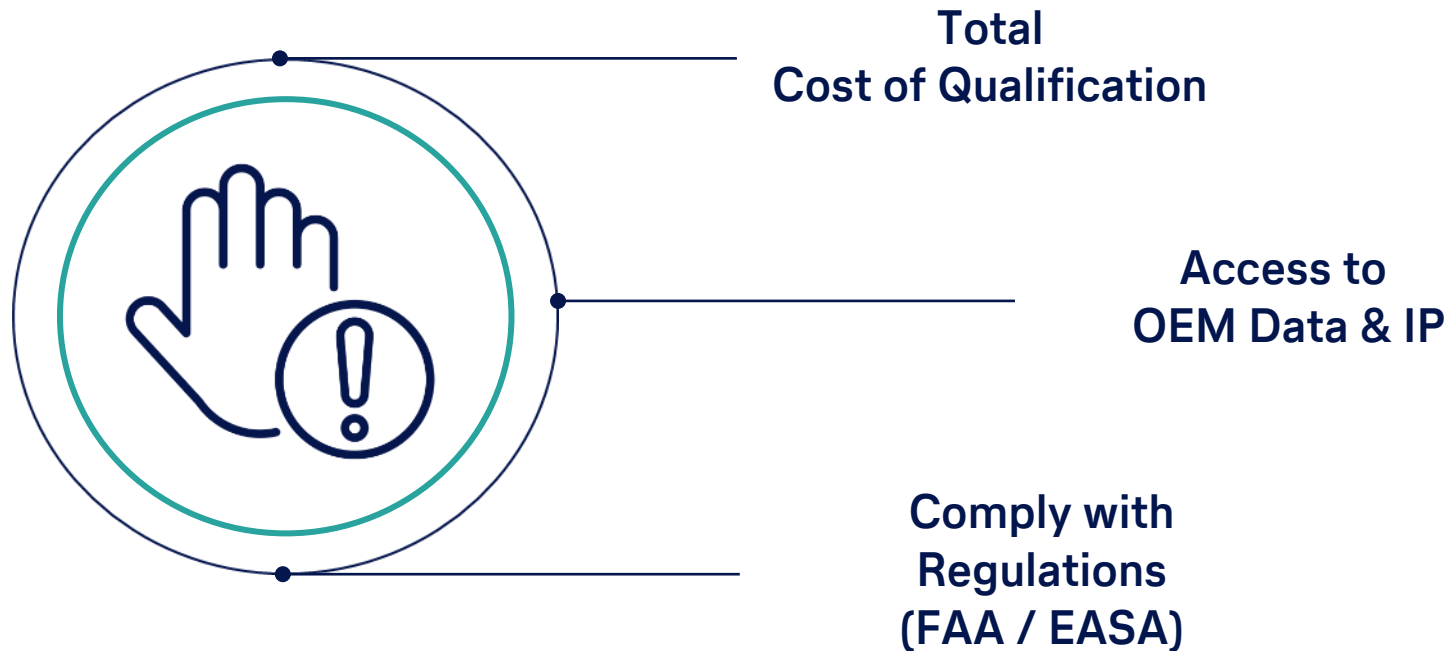
Collaborative Learning

- Online Distance Learning
- Tutorials
- Working Groups

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



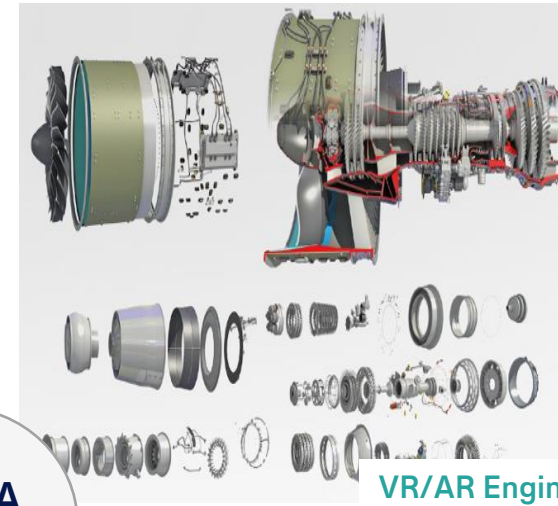
However, limitations in designing and implementing digital training concepts need to be taken into account



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



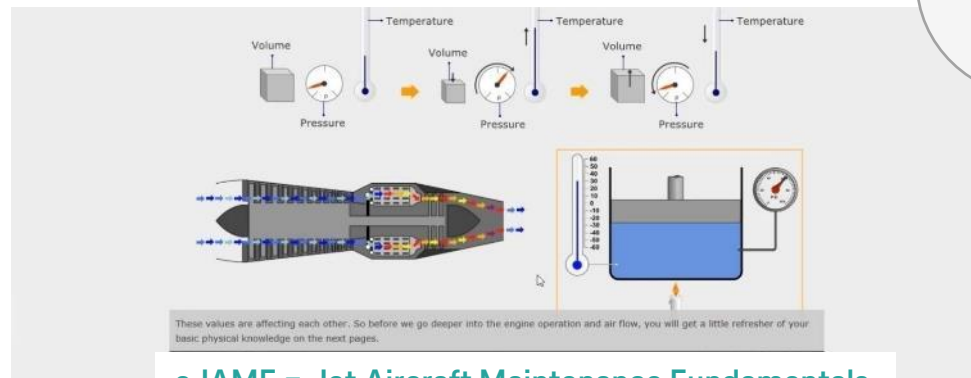
360° Viewers A/C & Engines



VR/AR Engine Basics



MEDIA SUITE



eJAMF = Jet Aircraft Maintenance Fundamentals



Video Tutorials





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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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