15th Asia Pacific Airline Training Symposium
28 - 29 August 2018 - Singapore

Engineering Shortages – Johnson
Shortage of Engineers: A Training Challenge and More

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28 August 2018
Presentation Plan: Shortage of Engineers

Current-Future Status

Three Prong Solution

Schools

Industry

Government

Discussion
Another look at the Aviation Maintenance Personnel Shortage and the Solutions

By Dr. Will Johnson

INCREASED DEMAND AND new regulations are fueling a skilled labor shortage that’s growing in the aviation industry. The push to maintain aircraft certification and remain current has increased the need for qualified workers.

WHERE TO LOOK

The FAA is working to address this current and growing shortage of aviation maintenance personnel. According to a recent study commissioned by the FAA, the number of certified instructors needed to meet demand is projected to exceed the current supply by 2024.

ARE SCHOOLS FACING TODAY’S WORKFORCE CHALLENGES?

The shortage of skilled workers is not only affecting aircraft maintenance, but also other industries, such as manufacturing and transportation. The FAA estimates that the shortage will continue to grow over the next decade.

What are some strategies that schools and programs are implementing to address the shortage?

1. Increasing enrollment in aviation programs
2. Offering incentives to attract and retain students
3. Partnering with industry to provide hands-on experience
4. Developing partnerships with universities for advanced studies

WHERE TO FIND MORE INFORMATION

The FAA provides resources and tools to help address the shortage, including a guide for educators on best practices for training aviation maintenance personnel. Visit the FAA website for more information.

Zoom
Go to: Humanfactorsinfo.com
Airbus: Need 630K New Engineers from 2018-2037

Boeing: Need 754K New Engineers from 2018-2037

Source: Boeing Technician Outlook: 2018 - 2037
What is our current situation?

USBLS estimates 4% annual growth

Retirements exceed graduations

Schools at 50% capacity

40% grads do not certify

20% certified go to other industry

70% certified have immediate job offers

The supply of commercial aviation mechanics will dip in less than 10 years..."
AVIATION MAINTENANCE TRAINING

3
Start Aircraft Maintenance Jobs

4
Receive Certification

7
Graduate

10
Start

From School to Work
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School Actions

Get the shortage message to the right audiences

Job Fairs & College Nights
Social media, press, radio, TV
Be relentless about promotion

Modernize

Paint, Lights, Signage
Eliminate the relic equipment
Modernize training technology

Diversity!
More School Actions

Alternate attendance options

Competency vs. time-based curricula

Training for trainers
  Pedagogy, Andragogy, Training technology
  Technical proficiency

Match curricula to local industry
Even More School Actions

Cooperation with NAA

Political Action
Industry Actions

Fair/Attractive Compensation
Active recruiting, retention, corporate culture

Collaborate with Schools
Marketing
Training/Apprenticeships
Tours
Political Action
Certification testing
Government Actions

Engineering Shortage = Safety Risk Priority

Competency-based Curricula

Collaborate with Schools

Marketing
Training/Apprenticeships
Tours
Political Action
Summary: Shortage of Engineers

- Current-Future Status
- Three Prong Solution
  - Schools
  - Industry
  - Government
- Discussion
Group Discussion?
Thank you,
Bill Johnson