

# Engineering & Maintenance Personnel Status in the UK

Stuart Algar – Chief Surveyor, Airworthiness, UK CAA

BBGA Conference - 11 March 2025

Together we will



Do the  
right thing



Never stop  
learning



Build collaborative  
relationships



Respect  
everyone

# Content

## 1. What are the issues? What is possible now? What are we planning to do?

- a. Scene setting
  - b. Problem statement - How do we increase the available personnel to support UK industry?
2. The demographic and profile of the UK LAE.
  3. Update on Apprenticeships.
  4. Update on CAA activity with the Military.
  5. What have we done?
  6. What is possible within the current regulation framework?
  7. What are the current pathways for personnel into the industry?
  8. How do we increase the volumes of existing sources and is there any new sources?



## Scene Setting

- Impact of EU exit – leading to a shortage of engineers.
- Industry operating beyond pre-pandemic levels of activity.
- Growth in industry requiring increase in demand for engineering resource.
- Decrease in experience levels within the industry with an ageing demographic.
- Under investment in training over the previous decades.
- Previous suppliers/feeders into civil world has significantly decreased (e.g. military, other industries).
- Certain EU states are no longer granting Part 66 licences to individuals who have completed training or experience at a non-EU member states.



# Scene Setting

## Problem Statement

Organisations face a challenge of attracting suitably experienced and qualified engineering and maintenance personnel; including mechanics but mainly in relation to licensed aircraft engineers. Exacerbated by a shortage of engineers, competitive market conditions, EU exit, demographic profile and the under investment in the supply of training over previous decades.



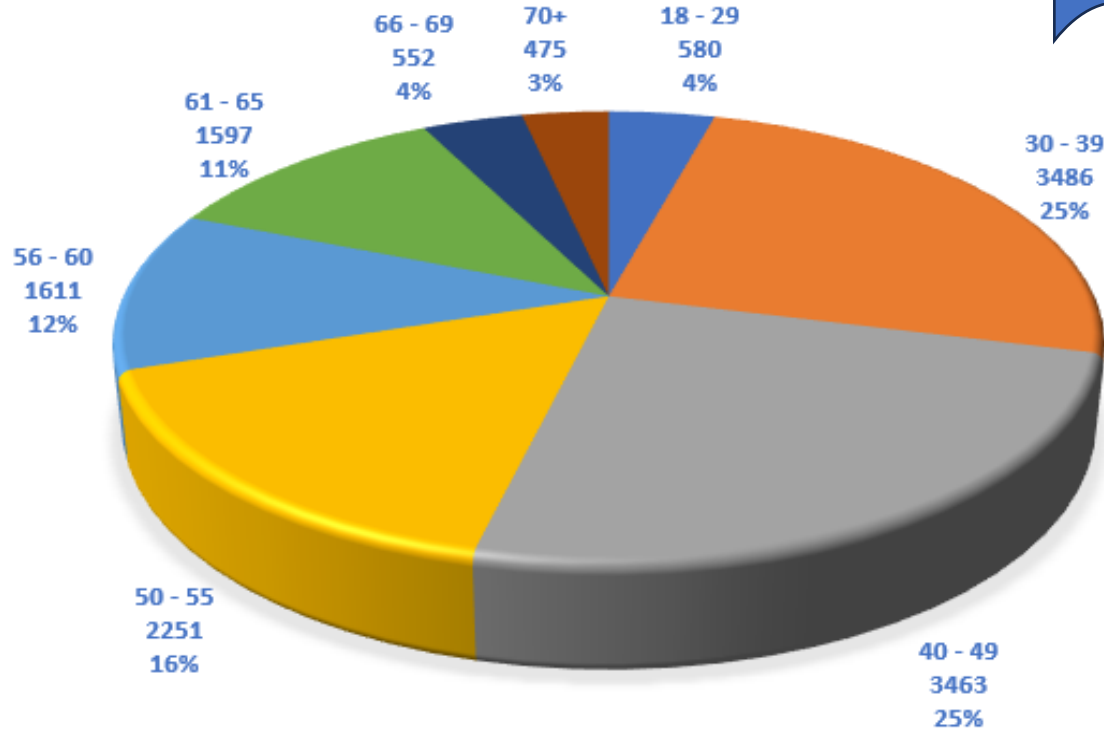
# The demographic and profile of the UK LAE.

2024 (14,015)

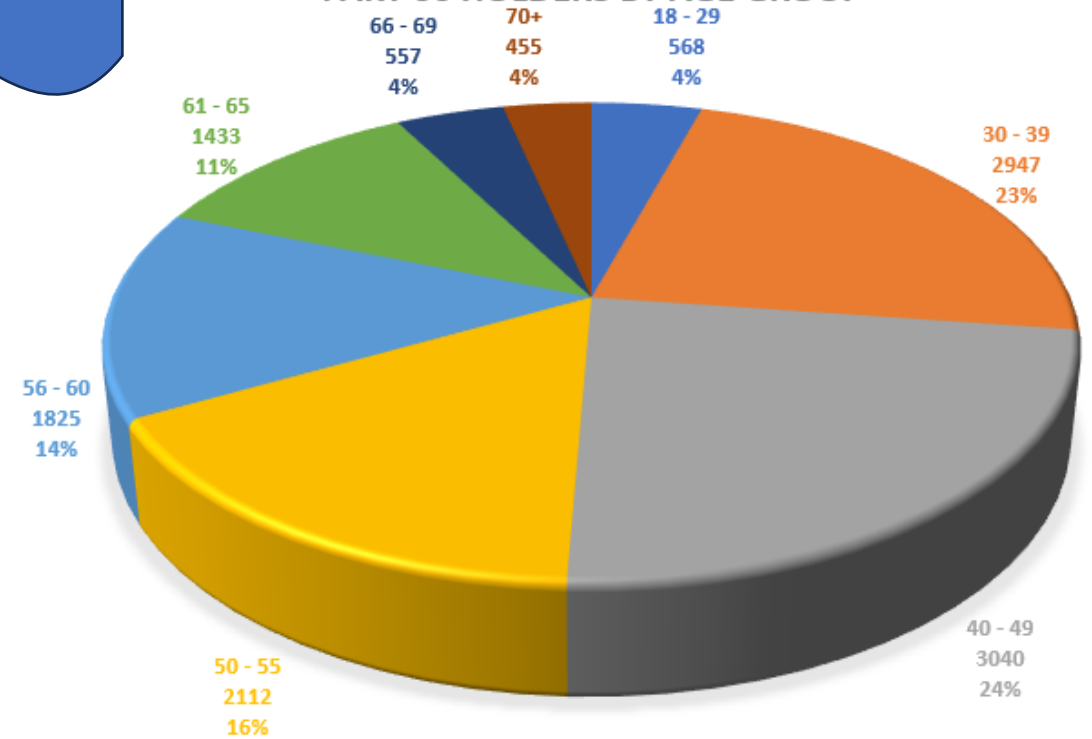
60%  
Engineers  
aged 45+

2023 (12,937)

PART 66 HOLDERS BY AGE GROUP



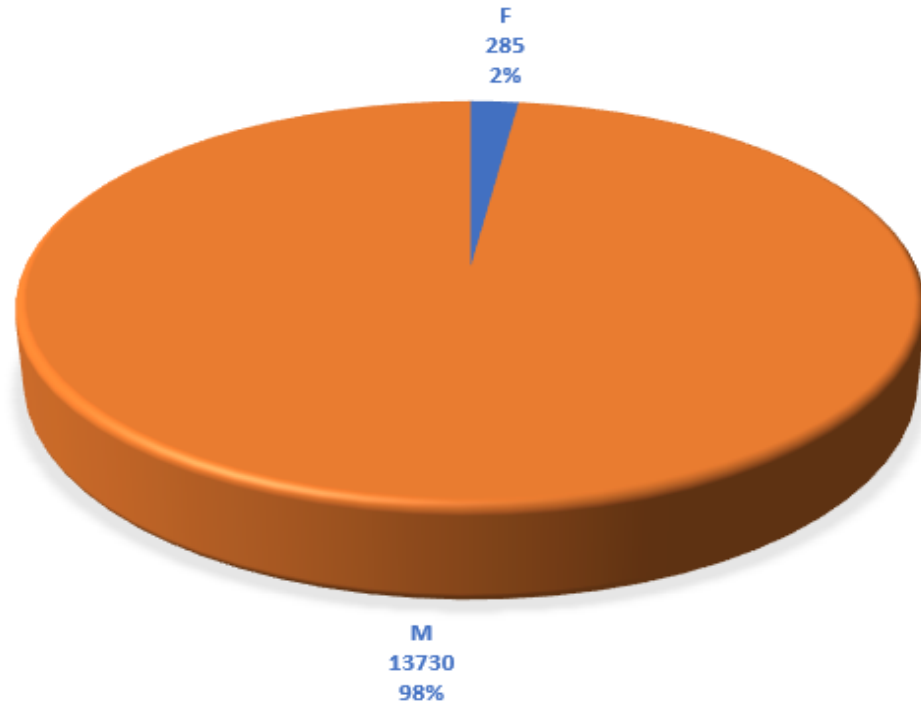
PART 66 HOLDERS BY AGE GROUP



# Gender Divide

## 2024

PART 66 HOLDERS BY GENDER



## 2023

NO DATA  
OBTAINED



# Update on Apprenticeships

## Completed

- CAA, Trailblazer Group, and Institute for Apprenticeships and Technical Education (IfATE) agree a proof-of-concept model
- CAP1814 – Guidance Material for the Accreditation of Apprenticeships in Aviation (Maintenance and Engineering)
- New Aircraft Maintenance standard approved and published ST1315 (Aircraft Maintenance Technician)
- New Part-66 pathway within the Aircraft Maintenance level 3 approved – UK Part-66 A license issued upon successful completion of a recognised apprenticeship



# Update on Military Pathway

## Completed

- REME Aviation now hold a UK Part-147 approval. Recognition of military training and experience towards gaining a civil Part-66 AML

## Next steps

- Acknowledging previous basic training towards accreditation (deltas)
- Recognition of Aeronautical degrees towards a Cat C licence
- (REME Aviation) Cross mapping of military experience to civil requirements

## Future work

- Engagement with 22 Group at RAF Cosford towards a tri-service approach
- Progressing with RAF and Royal Navy, assisted by RAeS
- CAP2254 – Military Aircrew Accreditation Scheme



# What have we done?

- Transitional provisions in EU Withdrawal Agreement expired at the end of 2022
- Approx. 3000 UK Part-66 AMLs issued using the EU2UK conversion process
- UK license reactivation route still open – this closes in **April 2025**
- Seeing significant increase in applications from Middle East & South Asia
- Organisations can use a Part-145 AMO, Appendix IV outside of the UK to certify UK Reg aircraft
- ENL introduced – electronic license application system



## What is possible within the current regulatory framework? (CAA/DfT)

- Unilateral acceptance of EU Part 66 licences? We would need the political position to shift between the UK/EU for this to be an option.
- Changes to Part-145 Appendix IV on acceptance of EASA Part-147 Certificates of Recognition? Not preferable due to evidence of issues with EASA CoR's and no active collaboration between CAA/EU NAA's/EASA on training standards and underperforming organisations.

## What other options are available?

- Mutual acceptance of UK and EASA Part 66 licences. This would require a change to the UK/EU BASA or Trade and Cooperation Agreement (TCA).



# What are the current pathways for personnel into the industry?

- a) Growth of current workforce – not just licensed engineers. Technicians, CAMO, and production personnel required too.
- b) Aviation Industry Apprenticeships
  - Direct – UK Part-145 Approved Maintenance Organisations
  - Indirect – UK Part-147 (Basic) Maintenance Training Organisations
- c) UK Part-147 (Basic) MTO's providing modular training and exams
- d) Further education training colleges – providing modular training and exams
- e) Ex-Military
- f) Ab Initio schemes
  - Conversion into engineers and technicians from other sectors



# How do we increase the volumes of existing sources and are there any new sources? (CAA/RAeS Working Group Discussion)

## Meeting notes:

1. Right to work/security clearance issues for non-UK nationals.
2. Use of Competency Based Training & Assessment (CBTA).
3. Coaching/mentoring burden of trainees.
4. Access to OJT, Part-145 availability. Why does OJT need to be under a Part-145?
5. Sharing of resources, training, and coaching/mentoring.
6. Ways of Working (WoW), lifestyle choices (shift patterns, flexible working, task variety) – how do we make the more attractive?
7. Similar technology (Group) Type Ratings – could this be an option?
8. How do we avoid a global bidding war for resource?
9. Safety/economic factors.
10. Recognition of aeronautical degrees (military) towards a Cat C Part-66 AML.
11. We need the data to demonstrate the current and future position for engineering personnel in aviation.
12. How do we train to retain?



## Other key discussion points:

1. Maximising the apprentice levy. Can it be used for ab initio training? Is there scope to increase the levy?
2. Financial burden of training. Is there scope for additional funding? Where from?
3. Supply & demand increases costs & salaries.
4. Aviation Skills Recruitment Platform.
5. Merging of other technical training centres (marine, nuclear, rail).
6. Hong Kong pathway for resource.
7. RAeS has the global reach.
8. STEM has a part to play, but how do we engage with young people?
9. Can the DfE offer anything?
10. This working group demographic probably has a lack of understanding of what young people want.



## Actions and next steps:

1. CAA – To produce further breakdown of data of active Part-66 LAE’s and the number of that have the right to work in the UK. This would be difficult to determine from available data. We can provide a breakdown of UK residents or non-UK and GA vs. non-GA types held, breakdown of license types and locations.
2. RAeS – To lead with industry input and possible survey to establish the scale of the issue. Data required includes:
  - a) How many vacancies are unfilled (145, CAMO, 147, 21G)?
  - b) What is the personnel load requirement for the UK (all E&M roles)?
  - c) Age demographic of current workforce?
  - d) What are the safety considerations (with examples) of not having sufficient personnel?
  - e) What are the economic considerations (with examples) of not having sufficient personnel?
  - f) What are possible quick win options to mitigate the issue?
  - g) What are possible long-term options to mitigate the issue?
  - h) How do we reach out and establish what younger people want?



## Actions and next steps (continued):

3. CAA – To consider an AltMoC for OJT not under a UK Part-145 environment.
4. RAeS – To consider writing a paper on this subject for wider stakeholder awareness and engagement, demonstrating the current and future position of engineering resource
5. All – How do we create one voice for lobbying on this subject?

N.B. – RAeS are not a lobby group.



# Thank You

Together we will



Do the  
right thing



Never stop  
learning



Build collaborative  
relationships



Respect  
everyone