

(Re)building capacity and capability: A safety regulators perspective on knowledge, skills and experience challenges.

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Safety Forum 2023



(Re)building capacity and capability:

Introduction

With the role of the UK CAA expanding over the years to include the creation of the UK Space regulation function, the re-establishment of the UK Design and Certification Capability and the pace of innovation and new technology, we play a key part for the safety and security in the aviation, aerospace and space enterprises.

How does the skills challenge look from an NAA perspective?



(Re)building capacity and capability:

Departure of skills. Creating new roles.

Factors contributing to the skills shortage across the aviation industry:

- COVID-19
- Ageing workforce
- Higher entry requirements
- Perceived environmental impact
- Job security
- Lack of people investment



Additional factors specific to the CAA:

- New entrants to the industry requiring industry response
- New CAA responsibilities (e.g., Space, AAM, hydrogen/electrical power)
- EU exit (e.g., re-establishing D&C, growing policy and rule making capability)
- Competitiveness in the market

(Re)building capacity and capability:

Safety as priority

How can NAAs grow and enable industry growth safely?

- Performance/ Risk Based Oversight
- Knowledge sharing
- Retention schemes
- Mentoring
- Attracting new skills to the regulator
- Growing our own skills – Apprenticeships, Graduate programmes
- Continuous professional development
- Industry/CAA work placements – benefits us both



Aviation Safety Management, Risk and Regulation

– Master of Science (three years part-time)



Module 1

Advanced Safety & Risk Management

Year 1 – 30 Credits

Teaching – online classes in January and February

Assessment due in April

Module 2:

Aviation Legislation & Regulatory Approach

Year 1 – 20 Credits

Teaching – online classes in May

Assessment due in July

Group project 1:

Managing Current Safety Issues

Year 1 – 10 Credits

Duration from September to December

Assessment due in January

Individual Research Project

Year 3 – 80 Credits

Duration from December to September

Thesis hand-in date in late September or very early October

Module 4:

Responding to Risk in Sociotechnical Systems

Year 2 – 20 Credits

Teaching – online classes in January, February and March

Assessment due in May

Module 3:

Aircraft Accident Investigation & Response

Year 2 – 10 Credits

Teaching – online one-week class in April

Assessment due in June

Group project 2:

Managing Emerging Safety Issues

Year 2 – 30 Credits

Duration from June to November

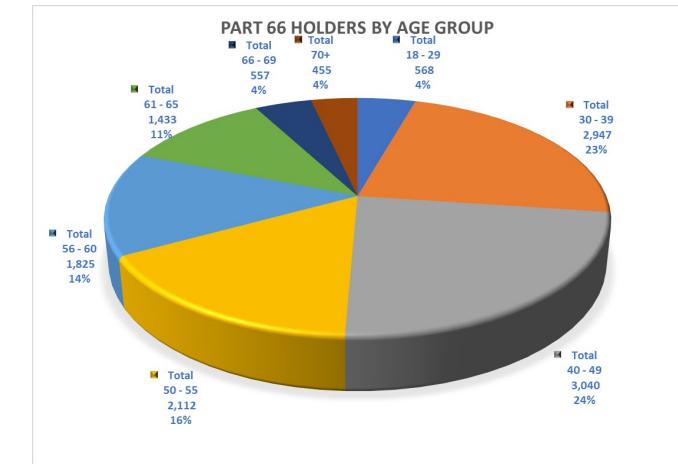
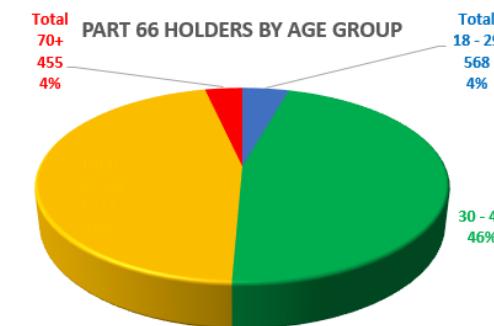
Assessment due in December

(Re)building capacity and capability:

Next generation of aviation professionals

How do we attract professionals and skills into the industry?

- Inspiring young people through STEM outreach activity
- Career development opportunities
- Broaden acceptable qualification requirements
- Promote sustainability and inclusion
- Benchmark against other industries
- ICAO minimum skills requirement
- Overall employee value proposition
- Challenge existing career profiles



Row Labels	Count of LicPermDesc
18 - 29	568
30 - 49	5987
50 - 69	5927
70+	455
Grand Total	12937



(Re)building capacity and capability:

Case Studies

Forming the new space regulation team and D&C capability:

- Challenges
- Solutions

(Re)building capacity and capability:

Summary

- Departure of Skills
- Changing landscape for careers
- Invest in new talent pools
- Continuous professional development – upskills and retraining
- STEM outreach for young people
- Colleague retention

Questions

Together we will



Do the
right thing



Never stop
learning



Build collaborative
relationships



Respect
everyone