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UK CAA Update

Graeme Day RFFS Policy

October 2025



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The Advance of Technology and Innovation.....



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- The implications for firefighters of alternative fuels – Li-On batteries, Hydrogen, Sustainable Aviation Fuel (SAF).
- Foam – EA Guidance 2022 Storage and Disposal of Fire-fighting Foam
- HSA PFAS Foam restriction Consultation
- ICAO RFF WG – RFF response scope Discussion paper.
- ICAO – Proposal for new chapter in the ASM.
(Family Assistance)
- Airports UK Fire Safety Sub-Group.



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- Urban Air Mobility (UAM) – implications of such aircraft for RFFS and responding emergency services (linked to Vert-ports).
- Standardisation of training provision and a future revision of CAP 699 - NOS for EV and hydrogen response are being developed.
- RFFS Information & Guidance page on CAA website - [Safety | Civil Aviation Authority \(caa.co.uk\)](https://www.caa.co.uk/safety)

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Emerging Technologies (at Aerodromes)

RFFS and Emergency Planning Arrangements



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Emerging Technologies (at Aerodromes)

RFFS and Emergency Planning Arrangements

- Government strategy – Net zero UK aviation by 2050
- SAF is a key measure.
- 26 million litres of SAF in UK (2022)
- RAF Voyager flight - 100% SAF
- Supply Chain Development.
- Costs



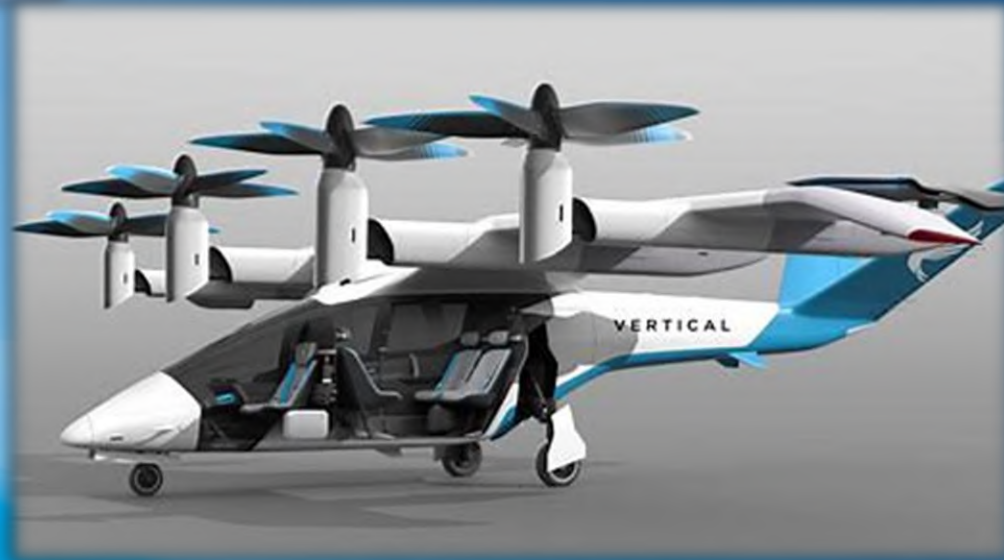
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Task Forces

- European Organisation for Civil Aviation Equipment (EUROCAE)
- Airport Compatibility of Alternative Aviation Fuels Task Force (ACAAF-TF) - RFFS CONOPS written.
- ICAO – EUROCAE and ACAA-TF will provide technical & operational expertise on compatibility challenges and proposed solutions.
- ICAO RFF WG.
- NFPA ARFF Technical Committee
- UK CAA Rulemaking and Policy Teams



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- Hydrogen Aircraft - perceptions/anxieties
- Aircraft modification and design approvals will require safety equivalence.
- Limited testing of alternative fuels in aviation accident context
- Learning from automotive sector.
- Incidents involving alternative fuels may require changes to RFFS tactics, techniques, equipment, training



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- Lack of airside infrastructure
- Complex Supply Chains
- Cost of Hydrogen production
- Complex Hydrogen refuelling process
- SAF is currently 4 – 8 times more expensive than hydrocarbon fuels
- SAF production can be water and energy intensive.
- SAF refineries need to be built worldwide if 2050 emission targets are to be met.



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eVTOL – RFFS Challenges

- Bespoke Design
- Training
- Toxic, flammable, explosive vapour
- PPE/RPE
- Firefighting tactics
- Let it burn?
- Extinguishing Agents
- Incident duration
- Environmental Impact
- Reignition
- Emergency Responder Guides
- HV systems
- Moving eVTOL/EVs
- Ongoing research – flood ports; design mitigations; battery construction; firefighting options



Airports UK RFFS WG Meeting

Any Questions?

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