

Business Jets Workshop 2025



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#easabusinessjets

Powerplant – Engine Installation and Fuel Experience

Daniel Stalph

EASA Powerplant Expert



Contaminated Runway Experience

- CS.1091 (d)(2) and its associated AMC are prescribing slush/ water depth to be coped with for compliance, whereas AC 20-124 allows to introduce a limitation
- EASA issued a project CRI to take benefit of a limitation for T/O or landing if the testing according to AMC 25.1091 (d)(2) did not lead to a successful demonstration
- This MoC can be generalized for the benefit of other applicants
- Reminder: AMC asks for crosswind consideration

Water/ Ice in Fuel - Background

- Sustained Operation with Water/ Ice in Fuel is covered in CS25.951 (c) since Amdt 1
- the incident of BA 777 and the subsequent investigation revealed an additional threat of ice accumulation and sudden release
 - This threat has been introduced by EASA via a SC
- the large transport A/C applicants gathered a good knowledge of the phenomenon via system level testing used as MoC to the SC
- Recent Business Jet TC projects led to numerous exchanges on compliance methods with applicants and validating authorities

Water/ Ice in Fuel - Status

The performance requirement (25.951 (c)) and the ice slush (SC) are two different problematics:

- For the 25.951 (c) EASA accepted component testing in the past and did not identify a reason to not continue this way
- For the Ice Slush accepts analysis based on similarity but expects that the similarity is based on test data generated by TC holder product family
- regulator coordination is on-going via CATA activity and the update of ARP1401

Engine/AC Interface Issues – Fire Testing

Despite awareness done by engine certification for possible supplementary A/C data generation, Fire Testing causes regularly intense exchanges at engine integration level :

- different boundary conditions, especially for ground case
- treatment of residual flames
- Similarity definitions – burner choice

EASA Powerplant experts expect a close collaboration between A/C and engine TC holder to ensure compliance to A/C requirements.

Regulatory Updates

- Recently issued CATA paper on
 - 2D Nacelle Fire Resistance
 - Fuel Line installation – Crashworthiness
- CATA paper under preparation
 - Water/ ice in Fuel
 - Tailwind engine operating characteristics
 - APU Air Inlet fire proofness
- Update of AMC 20-128A and specific guidance for FBO
- Implementation of SAE A22 Powerplant Fire Testing documents

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