Airbus comments on Docket No. FAA–2020–0894; Notice No. 33–19–01–SC Special Conditions: magniX USA, Inc., magni250 and magni500 Model Engines

Comment #1

Proposed SC n°18 - Ingestion

Comments:

Please specify the ingestion conditions that need to be taken in to account for compliance (rules and appendices from FAR 33 or others?).

Rationale:

It is understood that detailed means of compliance (test, analysis...) shall not be part of the rule. However, the conditions to take into account (icing environment for instance) shall be part of it.

Comment #2

Proposed SC n°25 – Operation Demonstration

Comments:

Please add a reference to relight/restart as follows:

The engine must demonstrate safe operating characteristics, including but not limited to, power cycling, acceleration, relight and overspeeding, ...

Rationale:

Relight/restart capability/performance is a key aspect of the engine that electrical engine designs shall take into consideration.

Comment #3

Proposed SC n°30 – Containment

Comments:

Please modify the text as follows:

[...]

- (a) The design of the engine must provide for <u>axial and radial</u> containment of the rotating components [...]
- (b) [...], axial and radial containment of the failed rotating components must be provided.

Rationale:

Experience with electrical generators has shown that axial ejection of debris might induce severe damaged to surroundings. Axial containment demonstration is considered feasible for electrical engines/generators and shall be required. Full containment capability shall be provided hence negating the need for identification of forward/aft ejected debris in the installation manual.