

MAHEPA Research Workshop

Workshop via Webex (restricted to EASA Staff, EU institutions and MAHEPA consortium members) - Modular Approach to Hybrid-Electric Propulsion Architecture

Event

Type: Workshop

Date:

02 Jul 2020 to 03 Jul 2020

Description

Date & time

- Day 1 morning session 9:00 - 12:00
- Day 1 afternoon session 14:00 - 17:00
- Day 2 morning session 9:00 - 12:00

Description

MAHEPA is a H2020-funded research project, developing key technology and a certification roadmap for future hybrid-electric airplanes. EASA is contributing to this project in an advising role. During the research workshop, EASA will provide guidance on the certifiability of specific research areas and on the evolution of the relevant standards.

Topics discussed will be the following:

Topic 1: Aerodrome Operations

- Utilizing small airports for CAT
- Concept of operations for bringing small airplanes to big airports
- Partial Runway utilization (i.e. landing short, landing long)
- Enabling Steeper Approaches (steeper than steep glide paths)
- Hydrogen at airports, EASA outlook on requirements for air operators
- Wrap-up and Conclusions Topic 1

Topic 2: Environmental impact quantification

- Noise for hybrid aircraft (is it a single dB number, is noise measured separately by mode of operation in a hybrid, i.e. battery-only flight vs. full-hybrid mode)

- What is the definition of fuel consumption (energy consumption measurement by kWh, kg of liquid fuel, hydrogen) and associated CO2 emission classes (EASA ecolabel)
- Wrap up and Conclusion Topic 2

Topic 3: Hardware and Software certification

- How to address COTS components for important functions (IGBTs, Magnets, etc.) because of lack of their design data
- Software certification and software updates considering also cybersecurity and maintenance aspects
- Wrap-up and Conclusions Topic 3

Topic 4: Maintenance

- How syllabus for Part-66 would need to change for Mechanics to be able to work on electric powertrains as well. This may also take into account the impact on Part-147 and Part-M
- Wrap-up and Conclusions Topic 4

General conclusions of Workshop

Registration

Participation only for MAHEPA project partners, EU Commission and other institutions, and EASA.

Contact

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