SAE INTERNATIONAL ELECTRIC AIRCRAFT STEERING GROUP (EASG)
Overview

Mark P. DeAngelo, PhD, SAE International
The Electric Aircraft Steering Group strategically identifies, landscapes, and coordinates the various standardization activities necessary to support full-electric and more-electric aircraft applications at the top level system, subsystem, and component levels.

Next meetings:
Monthly Virtual
April 18-19 Friedrichshafen, Germany
Scope of the electric aircraft / more electric aircraft (EA/MEA) landscape

Scope Topics

- Compliance
- Safety
- Power Electronics & Modular Open Architectures
- More Electric Engine
- Energy Storage & Power Source
- Subsystems
- Hybrid/Electric Propulsion

- Supporting infrastructure
- Power generation & distribution
- Maintenance
- Operations
- Testing, V&V (Systems Engineering)
- Controls
EASG is coordinating new SAE standards developments in the following areas.

- Adding provisions for MEA/EA to existing standards/recommended practices
- HIRF, Lightning, EMC/EMI (AE-4, AE-2)
- Crashworthiness (multiple committees)
- High voltage/power and electrical load characterization (AE-7, AE8)
  - AE-7 Aircraft High Voltage Workshop, March 20-22, 2018 – Everett, WA
- Cooling (AC-9, E-36)
- Distributed propulsion (flight & engine controls, PLOC, …), (A-6, G-10, S-7)
- Actuation (A-6)
- Ground support & charging (AGE-3, HYBRID-EV )
- Energy storage (AE-7, VBSSC)
- Figures of merit & standardized measures (power density, efficiency, …)
- Autonomy (AS-4)
- Deicing (AC-9C)
- Reliability, life, PHM… (HM-1)
- Noise (A-21)
Some examples of EA/MEA documents include:

**AIR6127** Managing Higher Voltages in Aerospace Electrical Systems

**AIR6326** Aircraft Electrical Power Systems, Modeling and Simulation, Definitions

**AS6349** Minimum Performance Standard (MPS) for an Airborne AC to AC Converter

**AIR6198** (WIP) Considerations for future more electric aircraft electric power systems

**AIR6343** (WIP) Design and Development of Rechargeable Aerospace Lithium Battery Systems

**ARP5584A** (WIP) Document for Electric Power Management

**AIR6897** (WIP) Lithium Battery Systems – Prognostics and Health Management (w/ HM1)

**AIR6505** (WIP) Electrical Load Characterization
EASG was started in 2015 and has been making steady progress.

- Developing strategy and key topics
- Identifying gaps in standards and guidance documents
- Engaging key stakeholders
- Supporting Part/CS 23, 25, 27, 29, 33/E, APU
- Working relationships with GAMA and ASTM
- Delegating new standards work

Attend the AE-7 Aircraft High Voltage Workshop, March 20-22, 2018!

- Meeting registration is complimentary!
- Registration/Agenda/Meeting info available here: 
  http://www.sae.org/servlets/works/committeeHome.do?comtID=TEAAE7
FOR MORE INFORMATION, CONTACT

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