

Adaptive Aerospace Standards for PHM!

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PHM Society Conference

October 2015

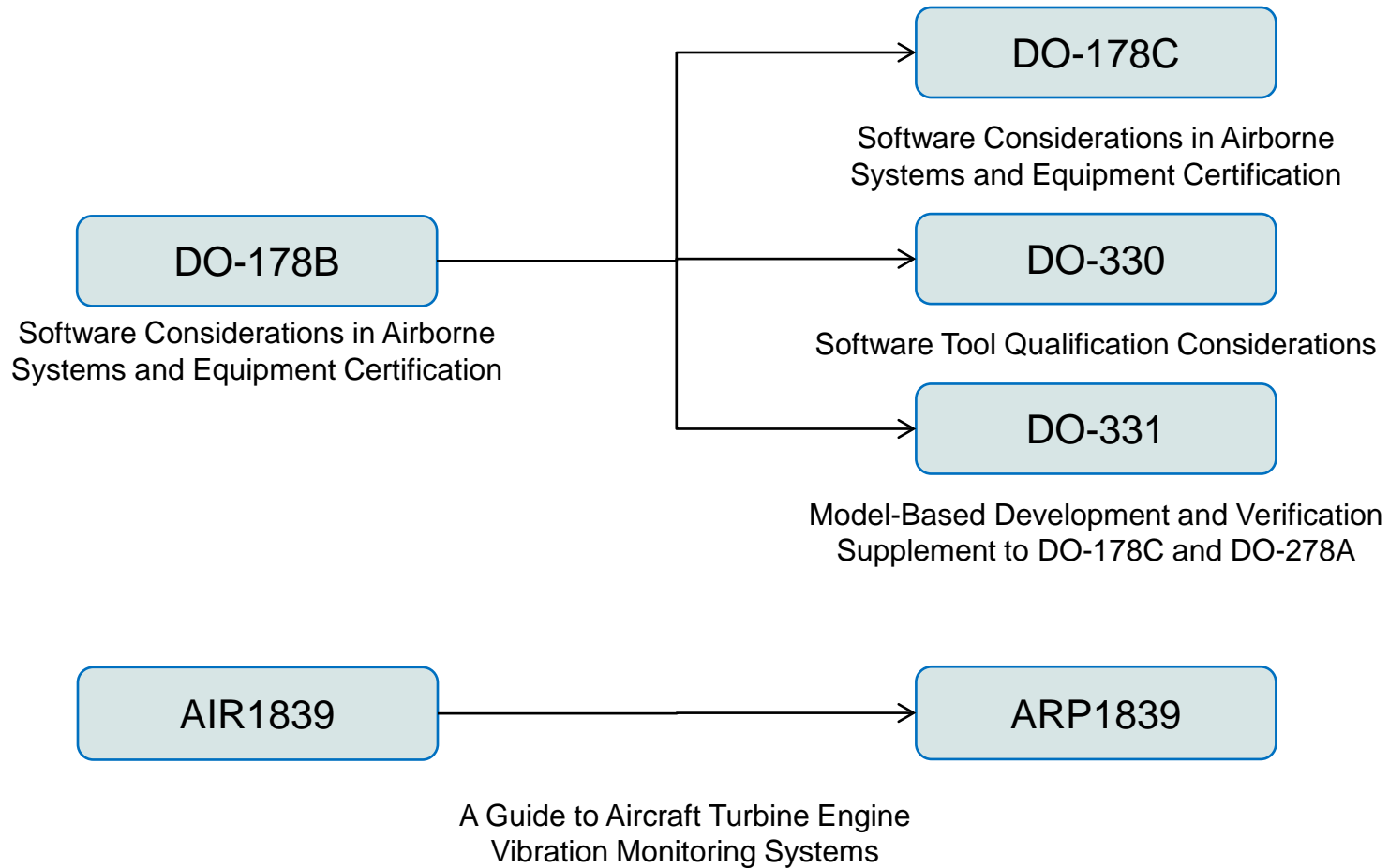
San Diego California

Evolution in Standards for PHM



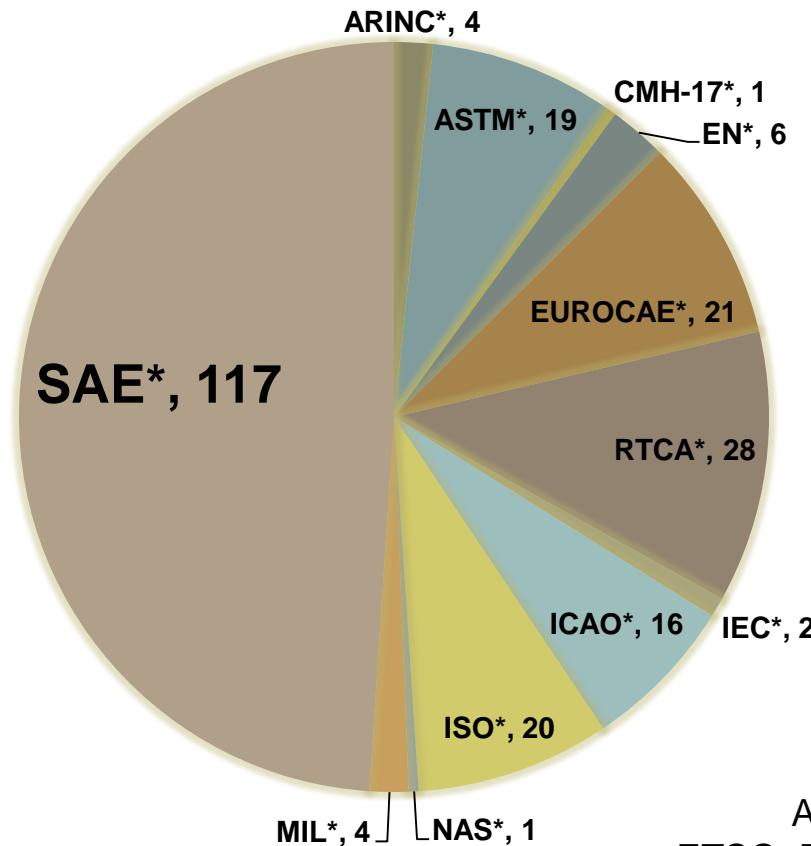
- PHM is a relatively new field
- Aerospace has taken a lead role with a few standards (e.g. engine vibrations) published in the 1970's
- Standards evolve constantly, due to
 - Technology evolution
 - Increased use of microprocessors and software
 - Changes in communication modalities
 - Evolution of certification criteria
 - Maturing of industry

Examples



Standards and Regulators

Unique Industry Standards Referenced in EASA CS, AMCs, and ETSOs.

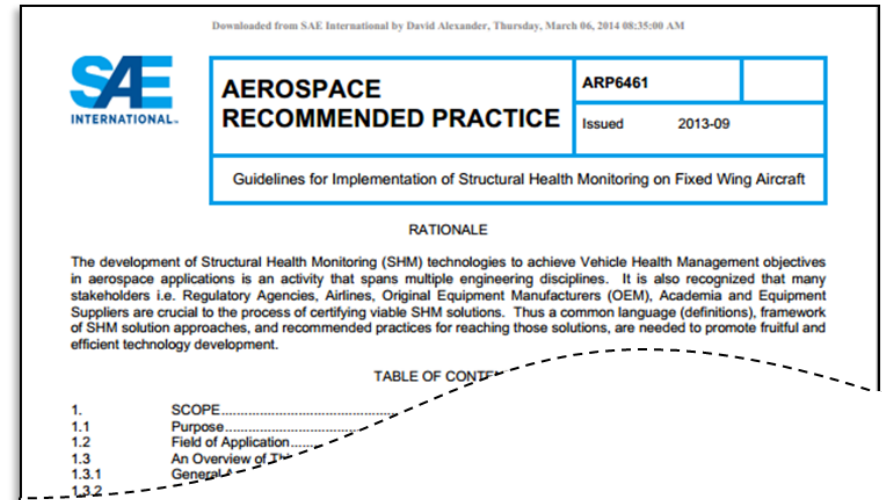


Total: 239

CS: Certification Specification
AMC: Acceptable Means of Compliance
ETSO: Engineering Technical Standards Order

ARP6461 SHM Recommended Practice

- Provides recommended practices for the implementation of structural health monitoring (SHM) technology for fixed-wing commercial aircraft.
- Details various SHM architectures, components and applications
- Includes guidance for specifying requirements, validation, verification and certification, including for airworthiness



- Calls attention to relevant regulatory statutes that would allow SHM to be used today as an alternate means of compliance for inspection (A4A-MSG-3)