Safety Management and Design Organizations

The Future of Aviation Safety Oversight and FAA-Approved Parts

New Regulations in the Works

FAA, EASA, TCCA and Industry are working in an Aviation Rulemaking Committee (ARC) to develop new rules to comply with an ICAO Standards and Recommended Practices (SARP)
FAA ARC Efforts

• First ARC: SMS for multiple sectors
• Second ARC is manufacturing only
  – Coordination among FAA, EASA and TCCA
  – Many manufacturers are participating
  – Four Working Groups
    • Design Organizations
    • SMS
    • Oversight
    • Cost-Benefit

ICAO Annex 8
Safety Management SARP

• States shall establish
  – Acceptable levels of safety
  – State Safety Programs for achieving acceptable levels of safety
• States shall require the following organizations to have Safety Management Systems:
  – Aircraft type design holders, and
  – Those who manufacture aircraft
ICAO Annex 8
Safety Management SARP

• SMS programs shall:
  – Identify safety hazards
  – Implement remedial action to maintain safety performance
  – Monitor and assess safety performance
  – Aim to improve safety performance
  – Define clear lines of safety accountability within the Organization

Modern Aerospace Production is Based on Organizations with Quality Systems

For example, in the US, FAA regulations require a quality manual defining the quality system and the relationships within the organization that make up that system.
49 USC 44704(a)(1)  
Issuing Type Certificates

- (a) Type Certificates.— (1) Issuance, investigations, and tests.— The Administrator of the Federal Aviation Administration shall issue a type certificate for an aircraft, aircraft engine, propeller, or appliance specified under paragraph (2)(A) of this subsection when the Administrator finds that the aircraft, aircraft engine, propeller, or appliance is properly designed and manufactured, performs properly, and meets the regulations and minimum standards prescribed under section 44701(a) of this title. On receiving an application for a type certificate, the Administrator shall investigate the application and may conduct a hearing. The Administrator shall make, or require the applicant to make, tests the Administrator considers necessary in the interest of safety.

There is NO requirement for an organization

Issue Number One

- In order to implement SMS requirements for existing design approval holders, the United States needs to create a design organization

*Design Organizations are foundations for Safety Management Systems*
But What Else Can Design Organizations Be?

- A privilege holder
  - Replacement for delegation of authority
  - Recognize findings of compliance
- Reduce FAA burden for certain functions
- Permit FAA to better focus its limited resources on oversight, systems management, and safety-critical functions

Design Organizations Could Better Manage the Design Process

For example:
- Processes for flowing down requirements to design partners
- Processes for integrating changes from design partners
- Processes for using lessons learned from prior designs
- Processes for responding to required design changes
Could FAA Rely on Other-Party Oversight?

- By implementing SMS within the design organizations, the organizations should benefit from design-process audits
- FAA has already suggested that they could rely on (or give credit for) design-process audits

Summary: What’s Changing?

- FAA plans to add design organization rules
- FAA plans to add safety management systems rules
- EASA and TCCA are participating in this process
Summary: What Does this Mean to Distributors

• Distributors should expect to see SMS principles become more common among quality systems
• Design organizations may be the future of parts approval
• Design organizations may replace designees
• Design organizations could be the future source of 8130-3 tags

Thank You

Jason Dickstein, ASA Counsel
Washington Aviation Group
2233 Wisconsin Avenue, Suite 503
Washington, DC 20007

Tel: (202) 628-6776 – Fax: (202) 628-8948
Jason@WashingtonAviation.com