Commercial Aircraft Safety Assessment and 1309 Design Analysis
Instructor: Marge Jones

Description
This course provides the practical knowledge of system safety requirements of 14 CFR 2X.1309 regulation, from fundamental philosophies and criteria to the analysis techniques to accomplish safety requirement identification, validation and verification. It includes detailed review of SAE ARP 4761 and system safety aspects of ARP 4754A, including allocation of safety requirements and assigning development assurance levels. Principles apply to all types of commercial aircraft certification and may also be adapted for any system safety activity.

Highlights
- Detailed review of the 14 CFR2X.1309 regulation and what it requires
- Overview of the SAE ARP 4761 Safety Assessment process for commercial aviation
- Overview of the SAE ARP 4754A Development Process focused to system safety aspects
- Aircraft and system functional hazard assessments
- Preliminary system safety assessments
- Failure rate prediction techniques
- Failure mode and effects analysis (FMEA) and summary (FMES)
- Fault tree analysis concepts
- Common cause analysis
- System safety assessments
- Tailoring the safety process for modifications
- Safety analysis and information required to support development of certification plans
- Guidelines for preparing 1309 safety related compliance statements

Who should attend?
Designed for Parts 23, 25, 27 and 29 system certification engineers, system designers, FAA Designated Engineering Representatives (DERs), aircraft certification personnel, system safety specialists new to commercial certification safety process and military personnel procuring civil equipment.

“I had a lot of gaps in my understanding of the entire system safety assessment process. This course has filled those gaps and equipped me to better perform my job responsibilities in this field.”
—Lenny Noice, Senior Engineering Manager–Systems, Rockwell Collins