**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?

This course is designed for Parts 23, 25, 27 and 29 system certification engineers, system designers, FAA Designated Engineering Representatives (DERs), aircraft certification personnel, system safety specialists who are new to the commercial certification safety process and military personnel who are responsible for procuring civil equipment.

“The course presentation was fantastic, with engaging and thorough course content. I knew I made a great choice by attending this course after learning that even the FAA sends their employees to KU!”

—Mike Beanes, Senior Software Engineer and FAA-Certificated Flight Instructor