Durability and Damage Tolerance Concepts for Aging Aircraft Structures
Instructor: John Hall

Description
Design, analysis and testing fundamentals are used as an introduction to the effects of fatigue and accidental and corrosion damage on the durability and damage tolerance of aircraft structure. Emphasis is placed on current programs used to assure continuing airworthiness of aging aircraft structure. Principal topics are centered on commercial jet transport aircraft, but fundamentals are applicable to all types of aircraft.

Highlights
- Background to current aging airplane programs
- Design objectives: safety, economics and responsibilities
- Damage sources: environmental deterioration and accidental and fatigue damage
- Evaluation: loads, stresses, detail design, analysis and testing
- Manufacture: processes and assembly
- Certification: fatigue and damage tolerance
- Maintenance: inherent characteristics and operator responsibilities
- Aging airplane programs: introduction, modifications, repairs, corrosion prevention and control, fatigue and widespread cracking and structural maintenance program guidelines
- Future airplanes: design and analysis, MSG-3-Revision 2

Who should attend?
Designed for managers, engineers, and maintenance and regulatory personnel in the aircraft industry who are involved in the evaluation, certification, regulation and maintenance of aging aircraft structures.

“This class was indeed interesting and useful.”
—Online course participant