AGING AIRCRAFT

The Aging Aircraft Lab supports the federal government and the aviation industry with investigations into the effects of age on commercial and military aircraft.

CAPABILITIES

Teardown Evaluations:

- Large Section Extraction
- Detailed Disassembly
- Chemical Coating Removal
- Non-Destructive Inspection
  - Close Visual Inspection
  - Florescent Liquid Penetrant Inspection
  - Magnetic Particle Inspection
  - Bolt Hole Eddy Current Inspection
  - Surface Scan Eddy Current Inspection
  - Magneto OpticImaging Inspection (Eddy Current Technique)
  - Ultra Sonic Inspection

Failure Analysis

- Optical and Scanning Electron Microscopy
- Flaw Extent Characterization
- Crack Failure Mode Determination

(Fatigue, Stress Corrosion, Overload, etc.)

- Corrosion Characterization
- Conductivity Testing
- Chemical Composition Analysis
- Hardness Testing
- Fatigue Crack Growing Rates

Process Development

EQUIPMENT

- 21-cubic ft. dry blast paint stripping booth for removal of organic coatings
- Magnaflux L-10 coil
- Parker Research AC/DC yoke
- Liquid penetrant inspection system
- Magneto optic imaging system
- Staveley workstation
- Nortec 2000S eddy scope
- Sonic 1200 ultrasonic unit
- Meiji Inc 7-45x optical microscope
- Hirox Co. 50-300x optical microscope
- Rene Co. digital optical micrometer
- Joel scanning electron microscope
- Chemical coating removal facility

ENGINEERING EVALUATIONS

- Stress
- Damage tolerance
- Finite element modeling
- Repair design

PROJECTS

- KC-135 teardown examination
- C-5A aftcrown skin testing,inspection and analysis
- F-16 STA teardown examination
- A-10 BHEC specimen generation
- B-52 landing gear and flight control teardown and inspection
- FAA metallurgical/fractographic
- Evaluation of structural components

CLIENTS

- AdamWorks
- Boeing
- Lockheed Martin
- Israel Aerospace Industries
- Sabreliner Corporation
- Sierra Nevada Corporation

CONTACT

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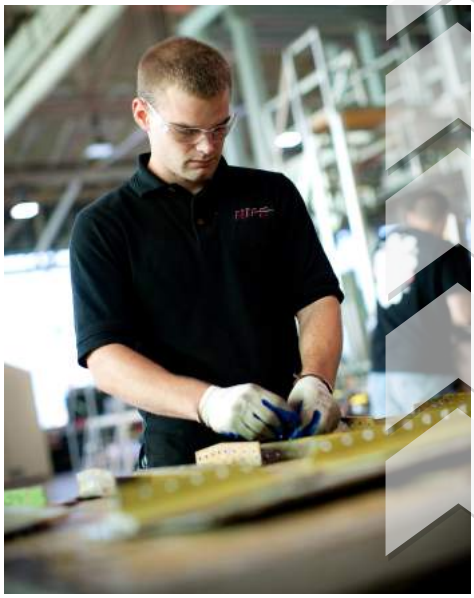

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