



FE Associates



# LEADERSHIP STATEMENT

## MISSION STATEMENT

FE Associates is a small engineering firm dedicated to increasing the efficiency and accuracy in diagnosis and implementation of repair and maintenance of aircraft component parts. Based in McLean, Virginia, 5 miles outside of Washington, D.C., FE Associates offers customized software that implements embedded expert structural analysis developed through decades of experience in the aerospace industry. Our goal is to save the managers of aircraft fleets money and time while at the same time increasing accountability in the repair and maintenance process.

## CORPORATE GOAL & VISION

Our corporate goal is to provide appropriate automated analytic support through all phases of the composite aircraft part life cycle. Our unique capabilities bridge the gap between rapid MRO efficiency goals and the demanding analytic support requirements of advanced composite parts. Our goal is to save money, increase availability, and enhance safety for DoD and commercial aircraft MRO by applying automated engineering analysis to full life cycle logistics, including inventory management. As composite materials become more ubiquitous in aircraft applications, we provide ever increasing value to owners and maintainers of military and civil aircraft, streamlining MRO, improving safety and maximizing return on their aircraft investment.





## CORE COMPETENCIES

### ANALYSIS, TESTING, AND EVALUATION

- Decades of experience solving the most challenging FEA problems:
  - Thermal,
  - Structural,
  - Dynamic.
- Developing productivity-oriented software that includes automated user-friendly engineering analysis:
  - Beyond the traditional bounds of finite element applications,
  - Enhancing understanding of NDI/NDT.
- Accreditation of engineering models.

### MISSION ASSURANCE ENGINEERING

- Software and Hardware Safety Engineering
- Mission Assurance
  - Compliance assessment,
  - Manufacturing evaluation,
  - Agency compliance.
- US Navy prime contractor
  - Software design, maintenance, and analysis.

### INFORMATION TECHNOLOGY

- Integration of FEA solutions with IT assets,
- Automated FEA of composite aircraft part repairs,
- Deployment, maintenance, and upgrade of custom software on DoD servers.

### RESEARCH & DEVELOPMENT

- Decades of experience at all levels of aerospace, DoD, and automotive structural R&D:
  - Fixed and Rotary Wing Aircraft,
  - Missiles,
  - Naval Vessels,
  - Automotive applications.



## PRODUCTS

### Automatic Repair Planning/Part Archival System (ARPPAS)

ARPPAS is a web-based composite aircraft part maintenance tool developed for MRO organizations.

- Provides automated engineering support for analysis, maintenance, logistics of composite aircraft parts,
- Saves days of depot time,
- Reduces logistics costs,
- Enhances flight safety,
- Actively monitors, interprets, and reports NDE results over entire life cycle,
- Automates electronic records maintenance,
- Does not increase the workload of the NDE technicians,
- Optimizes spare parts inventory,
- Reduces scrap and rework,
- Other benefits:
  - Accelerate MRO throughput,
  - Eliminate paper repair manuals and technology latency,
  - Improved ROI, up to 500% per year.

### MetaFEM

MetaFEM enables automatic migration of finite element data from one OEM FE preprocessor environment to another,

- Preserves and automatically transforms the entire finite element database, preserving engineering intent and model architecture,
- Supports migration of customers to less-expensive FEA tools without capability loss,
- Preserves investments in engineering models.





## CUSTOMERS

**US Air Force**  
**US Navy**  
**US Missile Defense Agency**



## SECURITY

The ARPPAS and MetaFEM systems can run securely in a classified environment. The principal at FE Associates, Fred Perkins, has Top Secret SSBI Clearance. Others within FE Associates have current Secret clearances.



## CONTACT US

FEA Associates is a small engineering firm dedicated to increasing the efficiency, efficacy, and safety of aircraft repair and maintenance. We are based in McLean, VA, 5 miles outside of Washington, DC. Please contact us for more information on how we can help you.

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