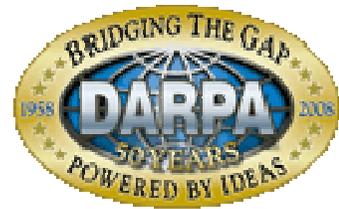




Better Decisions, Better Products
Through Simulation & Innovation

Multi-Physics Modeling & Simulation Technologies for Rotorcraft Applications



- **Founded in 1987**
- **Women Owned Small Business**
- **Located in Huntsville, AL**
- **Over 90 people with 75% Advanced Degrees**

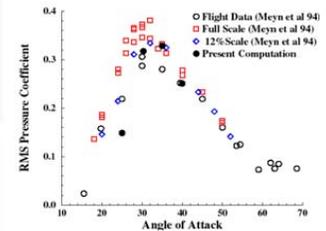
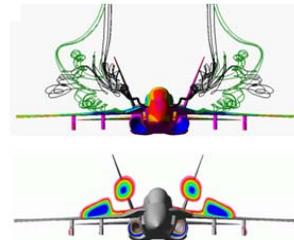
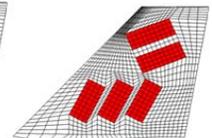
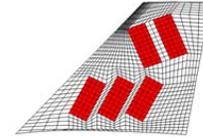
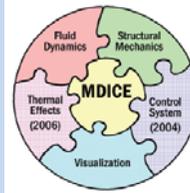
Winner of Multiple Small Business Awards



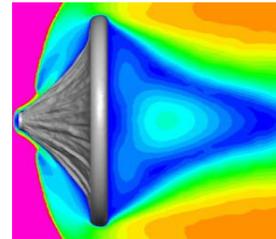
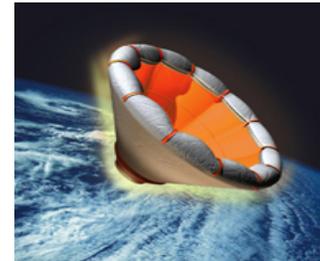
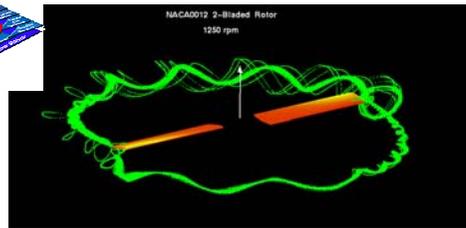
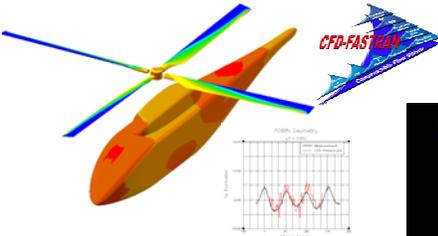
Active Structures Control Modeling Technologies

CFDRC Develops Advanced Technologies and Provides Expert Engineering Services for Rotorcraft Including:

- Computational Fluid Dynamics (Finite Volume, Finite Element)
- Computational Structural Dynamics (Finite Element)
- Coupled Aero-Servo-Thermo-Elasticity Analysis
- Aeroacoustics Finite Element Based Modeling
- Rotorcraft Aerodynamics & Structural Dynamics
- Coupled Fluid/Structure and Rigid Body Dynamics Analysis
- Store Separation & Vehicle Staging Aeromechanics
- Multi-resolution Technology for Efficient Rotor Vortices Resolution
- Vorticity Transport Technology for Vortex Dissipation Mitigation
- Advanced Highly Scalable Finite Element Structural Solver

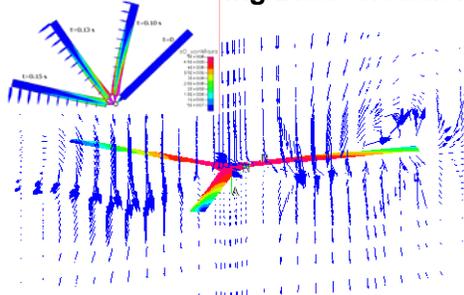


Coupled CFD/Structures/Controls (MATLAB) Analysis of F/A-18 with Smart Materials for Buffet Controls (Integration by MDICE)

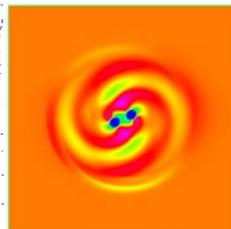


Coupled CFD and Rotor Dynamics Simulations Including Blade Rotation, Tilt and Twist

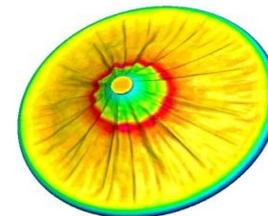
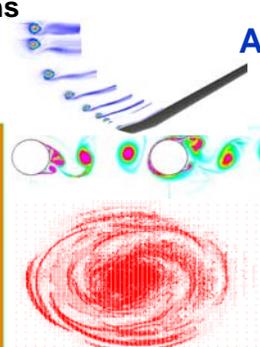
Aerocapture Ballute Aeroelastic Analysis



Coupled FSI Rotor Analysis



Multi-resolution technology for vortex resolution



FUN3D for CFD, ABAQUS for FEM, SBA for grid deformation, Integrated by MDICE