ES3

www.es3inc.com

PRODUCTS/SERVICES

Engineering Services:

Landing Gear - ES3 provides technical expertise in all aspects of landing gear systems research, test and evaluation, design and analysis, repair and maintenance.

Aircraft Structures - ES3 performs aircraft system tear down, Non-Destructive Inspections (NDI), and Analytical Condition Inspections of all major structural components and skins on fixed and rotary wing aircraft.

Wheels, Brakes and Antiskid - ES3 has an integrated team of mechanical engineers, electrical engineers, and logisticians performing research and development, test and evaluation, as well as performance qualification of new wheel, brake, and antiskid configurations.

Blast Walls and Barricades - The ability of buildings, bridges, dams, and other critical infrastructure to withstand a catastrophic event such as earthquake,, strike, or blast is of growing concern. ES3 provides predictive computations simulations of the response of reinforced concrete and steel structures during these catastrophic events.

Projectiles, Penetrators and Armor - Advanced materials, engineered at the nano-scale level are providing breakthrough capabilities for projectiles, penetrators, and armors. ES3 provides analytical simulation support and application of coatings to developers of projectiles, penetrators, and armor.

Advanced Coating and Environmental Initiatives:

Coating - ES3 engineers optimize coatings for a variety of specialized applications that encompass goals such as improved component performance, reduced environmental impact, improved reparability, and improved life cycle costs. ES3 experienced staff and state-of-the-art facilities enable us to design, test, and qualify a range of high-performance finishes for industrial high-wear surfaces, aerospace safety-of-flight components, and enhanced lightweight armors.

Environmental Solutions -

- Chrome Replacement
- Cadmium Replacement
- Chemical Free Stripping
  - » ES3 is developing Forced Pulsed Waterjet (FPWJ) stripping. Unlike traditional Ultra High Pressure Waterjet (UHP-WJ), FPWJ using a modulated stream of water flowing through a specially designed nozzle.


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Testing, Diagnostics and Analysis:

Fatigue - ES3 performs fatigue forensic inspection, digital fatigue analysis, and fatigue simulation as needed to support all new component designs or component redesigns.

Static - ES3 provides an array of structural monitoring diagnostics during operation and in operational test scenarios to support life assessments and identify areas for component/system improvements.

Dynamic - ES3 performs dynamic field testing as well as custom designed laboratory tests for verification and validation of new concepts and configurations. We use state-of-the-art instrumentation and data acquisition systems to capture actual dynamic phenomena data.

Maintenance, Repair and Overhaul:

ES3 provides services to support military and commercial fixed-wing and rotary wing aircraft. Our sustainment services include:

- Modifications, upgrades, and enhancements, including structural and electrical modifications to aircraft as well as avionics upgrades.
- Maintenance and repair, as well as improvements to current maintenance and repair processes.
- Logistical support for spares, maintenance, and repair of aircraft systems, subsystems, and components.

Parts Supply:

The engineering, quality, and inspection expertise of ES3 staff and facilities is available to commercial, foreign, and military clients through ES3 Prime Logistics Group, Inc. (ES3 PLG). ES3 PLG is an ISO 9001:2008 certified organization.

ES3 PLG is one of four prime contractors on the US Air Force's Landing Gear Prime Vendor Contract (LGPVC) providing spare, repair, and consumable components and assemblies for a variety of aircraft landing gear systems.

Modeling Software:

Modeling and Analysis of the Response of Structures (MARS)

» MARS is a powerful and robust object-oriented computational software for simulating the mechanical response of structural systems subjected to short duration events.

CUSTOMERS

Customer list – Government

- US Air Force
- US Navy
- US Army Corps of Engineers
- NASA

Customer List-Private

- ES3 has a diverse customer base including commercial customers.

Customers- International

- Foreign Government Agencies

GOVERNMENT CONTRACTING

ES3 is a supplier of products and services to federal and state government agencies. ES3's DUNS number is 12-728-3500 and federal Cage Code is 1PHL4. We have several military critical data agreements, clearing us for access to data subject to US export control laws. ES3's services are available through two of the General Services Administration (GSA) Federal Supply Schedules. These are: Information Technologies (IT) Schedule 70, ES3 Contract Number GS-35F-0491K and Professional Engineering Services (PES) Schedule 871, ES3 Contract Number GS-23F-0415K.

CORPORATE OVERVIEW

ES3 is a socially responsible, high-end engineering firm specializing in:

- Engineering and Design of Aircraft Components, Systems, and Subsystems;
- Advanced Material Coatings for Aerospace Applications;
- Specialized Metallurgical, Hydraulic, and Mechanical Custom Testing;
- Computational Methods for Structural Dynamic Analysis; and
- Development of Environmentally Preferred Material Processes.

ES3 STAFF

ES3 Executives oversee a diverse technical staff with a depth of capabilities in mechanical, aerospace, electrical engineering, and structural mechanics for aerospace and other high-end applications. ES3's environmental and material scientists develop and implement innovative improvements in material processing. ES3's quality assurance staff has established procedures, controls, and inspections to ensure best practices. Our computer science staff includes software engineers with the capability to design and develop highly engineered software applications while our system administration staff is qualified for maintaining systems with the highest requirements for availability, reliability and data integrity.

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