

EDF Incorporated is a Woman Owned Business located in Riviera Beach, Florida. EDF has over 30 years experience providing full service engineering solutions to the Aerospace industry. We were established in 1978 to focus on complex design and engineering support services for Pratt & Whitney in both West Palm Beach and Connecticut - the nation's number one rocket engine provider with 50 years of experience in Jet, liquid-propulsion systems and space technology. EDF's Senior Members have designed, built and operated propulsion test systems and facilities since the 1950's – providing us with exceptional capabilities to design innovative state-of-the art engine test facilities and equipment. This hand-down of knowledge contributes to our exceptional ability to conceive and create test systems and facilities that are optimized for functionality, efficiency and product safety with an emphasis on personnel safety.

EDF has completed over 10,000 projects or tasks related to the testing of Gas Turbine Jet Engines. We understand the logistics of fabrication, assembly and installation, harsh acoustic environments, vibration, temperature, pressure and airflow issues. With any facility, the key issue is the long term maintenance and operational costs of running these facilities. EDF has extensive knowledge in minimizing these costs and extending the life of test equipment and facilities. EDF can provide full Engineering, Project and Construction Management services for Gas Turbine Engine Test Systems and Facilities.

The engineering and design of complex Rocket Engine Test Facilities is also a unique capability of EDF. Rocket engine testing involves hazardous cryogenic propellants such as liquid hydrogen and liquid oxygen, usually at very high pressures, which requires specialized knowledge by the engineering firm. Also, most upper stage rocket engines must be tested at altitude conditions; which requires a complex altitude enclosure and a steam evacuation system. The cooling of the exhaust diffuser is a major challenge due to the high rocket engine exhaust temperatures. EDF can provide full Engineering, Project and Construction Management services for Rocket Engine Test Systems and Facilities.

In addition to serving Pratt & Whitney Rocketdyne, other customers include Pratt & Whitney Canada, Sikorsky Aircraft, Boeing, NAVAIR, Titan L-3 Communications, NASA Stennis, NAS Jacksonville, International Support Systems, Wyle Laboratories, Stearns-Roger, Hamilton Sundstrand, Hilton Systems, NASA Huntsville, Atomic Energy Commission, Transystems, Johnston Test Cell Group, SNC-Lavalin - Air France, Cenco and others.

EDF has achieved an international presence spanning across the globe with military and commercial customers across four continents.

It is our belief, what sets us apart from our competitors is our broad level of experience, the close relationships we develop with our customers and our deep focus on personalized service. We are committed to providing effective and reliable solutions at the highest level, optimizing the quality in all of our products and services economically. EDF builds strong partnerships with experienced suppliers, fabrication and construction companies to provide a full service for all of our customer's needs.

## Core Market

### Propulsion Test Facilities and Equipment, Data Acquisition and Controls

#### Architectural

Manufacturing Spaces  
Office Space  
Laboratories  
Industrial Process  
Overhaul Repair and Maintenance  
Indoor/Outdoor Propulsion Test Cells

- Functionality
- Acoustics
- Dynamic Thrust Loads

Storage  
Hangers  
Interiors

#### Civil/Structural

Concrete and Masonry  
Trenches  
Steel Buildings  
Portable Water Systems  
Fire Suppression Systems  
Fuel Supply/Storage Systems  
Cranes (Hoisting Systems)  
Equipment Rooms  
PE Registered

#### Mechanical

HVAC  
Cooling Towers  
Heat Exchangers  
Blowers and Pumps  
Mechanical Services  
Piping Systems  
Industrial Process Equipment  
PE Registered

#### Electrical

Industrial Power Systems  
Lighting  
Data/Phone  
UPS Systems  
Security Systems  
PA Systems/ Communications  
CCTV  
PE Registered

#### Design Drafting Checking

AutoCAD  
Solidworks  
Unigraphics  
Mechanical  
Civil/Structural  
Electrical  
Design Drafting Checking  
Checking

#### Construction Management

Contractors Interface  
Licensed

#### Project Management

Requirements Coordination  
Customer Interface  
Vendor Interface  
Estimating  
Scheduling  
Staff Management  
Resource Management  
Travel

#### Engine Types

TurboShaft  
TurboJet  
TurboFan  
Liquid Propellant Rocket  
Reciprocating  
Hypersonic

Engine Mounting Equipment  
Engine Test Equipment  
Engine Intake Systems  
Engine Exhaust Systems

#### Systems

Dyno, Water Brake & Torque Meas.  
Starters  
Lube  
Tooling  
Fuel  
Instrumentation  
Install & Removal of Test Article  
Trailers, Transport Equipment  
Thrust Measurement  
Auxiliary Power System  
Pneumatic  
Hydraulic  
Calibration

#### Analysis

Air Flow & Fluid Mechanics  
Acoustic  
Thermal  
Structural

#### Test Stand Types:

Run Up Stands  
Indoor  
Outdoor  
Hush House  
Out of Frame  
Altitude  
Component

#### Controls & Programming

Data Acquisition Systems  
Control Systems  
Interfaces  
Control Room Layout  
Throttles  
Labview Programming

#### Engine Testing

Test Cell Correlation  
Test Operator  
Test Engineer  
Instrumentation Technician  
Develop Test Procedures