

Jonathan A. Frost

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I have completed over 35 years of professional experience with proficiency as an airframe and hydraulics specialist, mechanical engineer, aircraft power plant engineer, and power generation gas turbine engineer. Additional aerospace experience includes aviation operations mishap investigation and aviation safety, air traffic facilities management, commercial pilot, and flight instructor.

Education

- Graduate, University of Rhode Island; Kingston, Rhode Island; Bachelor of Science in Mechanical Engineering.
- Graduate, Embry Riddle Aeronautical University; Daytona Beach, Florida; Bachelor of Science in Professional Aeronautics.
- Graduate, Florida Power & Light Group University School of Quality (provided by Breakthrough Management Group International), **Green Belt Certified**, Six Sigma DMAIC methodology for technical process improvement, 2009.
- **Graduate with Honors**, Senior Enlisted Academy, Naval Education and Training Center, Newport, Rhode Island; management, communication skills, and national security affairs, 1991.
- Graduate, Naval Air Technical Training Center, Millington, Tennessee. Mechanic Fundamentals, Aircraft Familiarization, and Aviation Structural Mechanic courses, 1971; Control Tower Operator course, 1981; Radar Approach Control Operator course, 1982; Air Traffic Control Facility Management and Terminal Approach Procedures course, 1988.
- Graduate, Burnside-Ott Aviation Training Center, Miami, Florida. Pilot training: commercial, instrument, multi-engine land, and flight instructor, 1980.

Florida Power & Light Company; Juno Beach, FL, October 2000 to Present

Principle Mechanical Engineer

- Subject Matter Expert in understanding and correlating mechanical and control systems integration using telemetry data to investigate, troubleshoot and resolve a variety of complex combustion system malfunctions and related processes.
- Developed processes and **statistical analysis tools** for building advanced software to predict operational behavior of mechanical and control systems.
- Conducted Failure Modes and Effects Analysis (**FMEA**) for off specification operating conditions, for non-conforming components, and for component upgrades, which included risk evaluation for execution of countermeasures to predict failures while considering safety and environmental factors.
- Conducted **root cause analysis of mechanical failures** on heavy duty gas turbines using telemetry data for discovering off-specification data while evaluating correlations of multi-variable factors.
- Subject Matter Expert in combustion troubleshooting and tuning Dry Low NOx (DLN) Combustors on GE 7241FA, Siemens 501FD, and Mitsubishi Hitachi 501G gas turbines; developed the corporation's gas turbine tuning program.
- Engineered and wrote procedures developing and maintaining combustion-dynamics acoustic monitoring systems.
- Wrote numerous "*Letters of Instruction*" for a fleet of over 50 heavy duty gas turbines to improve cost, reliability, and safety of operations.

Teledyne Continental Motors, Mobile; Alabama, March 2000 to April 2000

Production Test Manager

- Production Test Business Unit Leader responsible to the vice president of manufacturing for all aspects of aircraft engine test and production output.
- Managed 29 employees including engine test technicians and mechanics.

Pratt & Whitney, Large Military Engines; West Palm Beach, Florida, January 1999 – March 2000

Senior Mechanical Engineer

- Engineer and PW F100-220 engine repair program liaison lead for worldwide repair activity; military repair group liaison for U.S. and international Air Force customers to define and prioritize repair tasks requiring development.
- Interfaced with gas-turbine component-repair vendors to obtain source qualification and licensing agreements including process reviews and quality audits. Familiar with ISO 9000 certification standards.
- Created comprehensive military engine repair program plans, provided proposal support, identified distress modes, and performed data trending analysis to identify military engine repair requirements.

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Pratt & Whitney, Assembly and Test; Middletown, Connecticut, 1996 – 1999

Mechanical Engineer

- Wrote design engineering changes for commercial aircraft engine components which included revising engineering drawings and providing design substantiation **to meet FAA certification requirements** under appropriate Federal Air Regulations.
- Performed root cause investigations on gas turbine-engines to improve engine efficiency, to provide corrective action for assembly process improvement, and to provide cost reduction through engineering-design change initiation and validation.
- Provided engineering support to engine manufacturing, assembly, and test operations.

United States Navy, December 1970 – September 1994

Airport and Air Traffic Control Facility Management, 8 Years

- Senior Leading Chief-in-Charge of Bermuda, UK Air Route Traffic Control Center managing over fifty controllers.
- Coordinated the scheduling of all special-use airspace operations in the Bermuda region to ensure safe integration of air carrier and military operations.
- Negotiated many operational letters of agreement between Federal Aviation Administration and government agencies of Canada, the United Kingdom, and the United States.
- Supervised FAA flight inspections of Air Traffic Facility equipment.
- Organized International Air Traffic Users Conferences; developed agendas, chaired meetings, and mediated between chief pilots of major air carriers, domestic and foreign government agencies, and members of airport management.
- Oversaw the planning of two major airfield-construction projects with respect to managing Air Traffic Operations.
- Coordinated the maintenance of runways and navigation-aids.
- Senior Leading Chief- in-Charge of Brunswick, Maine Terminal Radar Approach Control Facility managing over forty controllers.
- Collected and analyzed data for investigating aviation operational mishaps to improve air-traffic safety; such tasks **included researching FAA regulations**, writing technical reports, transcribing voice recordings, and charting radar plots.
- Member of two aviation safety-councils; recommended policy and procedural improvements of aviation operations to top executives to improve flight safety.

Air Traffic Controller, 6 years

- Supervised twenty-eight controllers aboard the USS Coral Sea; Carrier Air Traffic Control Center (CATTC) Supervisor
- Worked high tempo aircraft carrier air traffic operations.
- Managed fifteen controllers as a facility watch-supervisor and control tower chief.
- Operated the control tower and radar-approach-control facility for military-jet-base.

Aircraft Mechanic, 10 Years

- Experienced aircraft mechanic and quality assurance inspector on transport and tactical jet aircraft.
- Serviced, disassembled, inspected and repaired airframe and engine components at organizational and intermediate levels of maintenance
- Specialized in hydraulic, pneumatic, flight control, and environmental systems.
- Experienced in flight control surface replacement and flight control system rigging procedures including cable and hydraulic control systems.
- Participated in operational testing and troubleshooting of aircraft and engines following major maintenance events.

Special Accomplishments

- Received numerous Quality Improvement awards and Peer awards as Principle Engineer with Florida Power & Light Co.
- Awarded Navy Commendation Medal for superior leadership.
- Awarded three Navy Achievement Medals for outstanding job performance.
- Selected Sailor of the Year in 1986, ranked number one of over 3,500 aboard the USS Coral Sea.
- Commercial Pilot and Flight Instructor; Instrument-rated in single- and multi-engine airplanes.
- President, board of directors for Navy Flying Clubs in Brunswick, Maine; Key West, Florida; and Keflavik, Iceland.

http://www.frostairaviation.com/employees/jack_bio.html