

## **J L. Ferrell Jr.**

*President*

Viking Aerospace LLC.  
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### **(i) PROFESSIONAL PREPARATION:**

1963 BSEE, Prairie View A & M University, Prairie View, Texas  
1967 Linear Systems Analysis, University of Washington, Seattle, Washington  
1977 AED High Level Software Language Familiarization, Rockwell Collins  
1981 Structured Software Design and Programming, Integrated Computer Systems  
1983 Defining Software Requirements, Specification, & Tests, Integrated Computer Systems  
1983 Technical Proposal Workshop II, Lockheed Proposal Development  
1985 Leadership Development Program (LDP), Lockheed Organizational Development

### **(ii) APPOINTMENTS:**

2002-Present Retired from Lockheed Martin Skunk Works

1996-2002, U-2 Reconnaissance Airplane Project Engineer responsible for the Autopilot and Air Data System (APADS), the Actuator Development and Replacement Program (ADARP), and the Angle of Attack (AOA)/Stall Warning System Program. All of these systems required definition, specification, interface, design development, ground and flight test plan development, aircraft ground and flight testing support for certification to Air Force requirements.

1994-1996, Tier III/DarkStar Unmanned Airplane Project Engineer responsible for automatic landing gear control, nose wheel steering, braking, and oversight of Boeing's development of Automatic Flight Controls/Actuators. All of these systems required definition, specification, interface, design development, ground and flight test plan development, aircraft ground and flight testing support for certification to DARPA and later to Air Force requirements.

1991-1994, Classified Program Project Engineer responsible for Automatic Flight Controls, digital bus interfaces/documentation, GPS/inertial navigation system and cockpit electronic displays.

1986-1991, ATF YF-22 prototype competition R & D Engineer acting as group engineer for Vehicle Management Systems (VMS), and Integrated Vehicle Subsystem Control (IVSC). The tasks included definition, specification, design, integration, interface testing, presentations, schedules, problem solving, and coordination (suppliers and team members) of aircraft utility subsystems (electrical, hydraulic, landing gear, etc.) processing & I/O requirements for prototype aircraft, DEM/VAL trade studies, and FSD VMS/IVSC configurations.

1983-1986, Unmanned Airplane Branch R & D Engineer in a research program involving the development and testing of GPS and integrating both medium and low cost/accuracy Inertial Navigations Systems (INS) with the GPS. The tasks included system definition, design, integration, interface, laboratory/motor-home (ground testing)/flight testing, presentations, schedules, tracking budget, vendor and company coordination, reports, and problem solving.

1969-1983, L-1011 Design Specialist and Lead Systems Engineer for both the Digital and Analog Automatic Flight Control System (AFCS), and FAA Designated Engineering Representative (DER). My AFCS responsibility included the basic autopilot, fail operational autoland & yaw Stability Augmentation System (SAS), auto-throttle, digital maintenance system, direct lift control/auto-spoiler system, and altitude alert system. The tasks included system definition, design, specification, integration, interface, proposals, customer requirements, vendor and company coordination, software design and change approval, software

walk-thought and review, verification and validation (V&V) requirements, laboratory and flight test requirements, customer and product line support.

1965-1969, Boeing Design Engineer for the 727 and 737 autopilot, automatic landing system, yaw SAS, and auto-throttle.

1963-1965, Commissioned officer in the U. S. Army. Served as company commander, company executive officer, and weapons instructor.

Top Security Clearance from the US Government with a background check in 2001.

Test & Evaluation	Flight testing of Boeing 727, Lockheed L-1011, ATF (YF-22), and U-2/TR-1
Software Engineering	Classified program
Integrated Logistic Support	Boeing 727, Lockheed L-1011, U-2/TR-1
Design Engineering	38 years at Boeing Commercial & Lockheed Martin (L-1011 Commercial & Skunk Works) and consultant at Rocketplane Limited Inc.
Launch Vehicle Design	X-33
Ground System Design	Dark Star (Tier 2+) and X-33
Reliability and Maintainability	Boeing 727, Lockheed L-1011, U-2/TR-1, SR-71
Launch Operations	X-33
Modeling and Simulation	Dark Star (Tier 2+), U-2/TR-1
Concept Development	Lockheed L1011, Unmanned Aircraft, ATF (YF-22), F-117, Dark Star (Tier 2+), X-33, & some Classified programs.
Architecture Development	Rocketplane Model XP, Boeing 727, Lockheed L-1011, Unmanned Aircraft, ATF (YF-22), F-117, U-2/TR-1, Dark Star (Tier 2+), SR-71, X-33, & some Classified programs.
Modernization Planning	U-2/TR-1
Environmental/Bioenvironmental Engineering	U-2/TR-1
System Safety Engineering	U-2/TR-1, X-33
Acquisition System Protection	F-117, U-2/TR-1
International Program Security	