

Thomas Horne is a Senior Managing Consultant at Engineering Systems, Incorporated (ESi), where he uses his test piloting and aeronautical expertise to conduct aircraft accident analysis, reconstruction, flight tests and reporting. He is skilled in a number of areas of aviation as an FAA Flight Test Pilot Designated Engineering Representative (DER 23 and Part 25) and routinely advises, plans, conducts and reports on a variety of flight test programs. His expertise focuses mainly on the human factors aspects of avionics and autopilot systems as well as detailed design, fault hazard analysis, testing and certification of traditional mechanical flight control systems as well as software and hardware design, testing and certification of fly-by-wire aircraft flight controls.

Tom joined ESI after a 26-year career at Gulfstream Aerospace where he held positions as a Master Experimental Test Pilot, Chief Test Pilot, and Director of Flight Operations Test. Before his career at Gulfstream, he was a U.S. Air Force Experimental Test Pilot, Operations Officer, Squadron Commander, and Operations Group Commander for a variety of Air Force flight test programs.

Tom has a vast array of piloting experience with over 13,600 hours and 150 different aircraft types including jet fighters, turbo props, light aircraft, and large corporate aircraft. His primary piloting experience is in all Gulfstream types from GII through GVIII, F16, F4, Beechcraft King Air, Cessna T210, Beechcraft Bonanza, Spartan Executive, and multiple aerobatic aircraft. He holds an Airline Transport Pilot, Commercial, Flight Instructor, multiple aircraft type ratings and an LOA for L39 airplanes. He regularly performs a variety of flight tests on a variety of aircraft types as a Consultant Flight Test Pilot DER.

Education

MS, Engineering Management. University of South Florida
BS, Aeronautical Engineering (Magna Cum Laude). North Carolina State University

Contact Information

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ESi Atlanta

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Areas of Specialization

- Aviation
- Aircraft Certification
- Test Pilot
- Aviation Maintenance
- Human Factors

Certifications

- FAA Designated Engineering Representative all areas of Flight Test Pilot Part 23 (small) and Part 25 (large) aircraft
- Airline Transport Pilot, Flight Instructor, and Flight Instructor instrument ratings
- Airframe and Powerplant Mechanic with Inspection Authorization
- Letter of Authorization
- Aircraft type ratings in Gulfstream GII, GIV, GV, GVI, GVII aircraft

Positions Held

Engineering Systems Inc., Peachtree Corners, GA

- Senior Managing Consultant, 2023 – Present

Gulfstream Aerospace Corporation

- Master Experimental Test Pilot and FAA Authorized Representative 1997 – 2023
- Chief Test Pilot and Director of Flight Test, 2016 – 2020

United States Air Force (USAF)

- Flight Test Wing Director of Operations, 1995 – 1997
- Flight Test Squadron Commander, 1993 – 1995
- Operations Officer, 1986 – 1990
- Flight Test Engineer Electro Optical Systems, 1976 – 1979

General Dynamics

- Advanced Performance Engineer, 1975 – 1976

Continuing Education

- USAF Test Pilot School
- FAA Organization Delegation Authority Unit Member Training
- USAF Undergraduate Pilot Training
- F16 Initial Training
- F16 Instructor Training
- Air Command & Staff College, USAF
- Air War College, USAF

Professional Affiliations/Honors

Society of Experimental Test Pilots

- Fellow

Sigma Gamma Tau, Aerospace Engineering Honor Society

- Member

Experimental Aircraft Association

- Member

Daedalians Military Pilots Association

- Member

Cessna Pilots Society

- Member

USAF Test Pilot School

- Distinguished Graduate

Undergraduate Pilot Training

- Top Graduate

F16 Pilot Training

- Top Graduate

F16 Instructor Training

- Top Graduate

General Dynamics Technology Awards

- Synthetic Vision and PlaneView Cockpit Designs

Bendix Award

- Synthetic Vision

Collier Trophy

- G5 and G650 Aircraft

National Aviation Association (NAA) Flight Achievement Record

- Around the World Record in the GVI (22)

NAA Outstanding Aviation Accomplishment

- 2013 GVI Around the World Record



Runway Overrun and Runway Takeoff Performance Monitoring and Alerting

- Inventor with 6 Patents

FAA Master Pilot