

**Robert Rutherford**  
**CURRICULUM VITAE**  
**March 2024**

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**Present**

**Air Safety Consultant** (Managing Director for In Flight Dynamics, LLC) in practice supporting business and legal enterprises. Specializing in airborne operational issues, flight test and certification (icing), Flight Demonstration, aerial display and expert litigation – plaintiff and defendant.

**Consultant** supporting engineering and management to a variety of companies including areas encompassing aerospace and aeronautical devices for ice protection, flight test, and high temperature sealing.

**Public Speaker / Educator** Speaking to aircraft industry groups on various topics and specializing in in-flight icing.

**Currently Own and Operate** Cessna 340A N340FA SN-0527  
Boeing PT 13 Stearman N65051

**Board of Trustees** Cleveland National Air Show

**Executive Flight Training** Instructor for recurrent training in simulators and aircraft

**1980 to 2015**

**President** for GBSA Inc. a small import/distribution company dedicated to rubber molded sealing components

**1998 to 2014**

**Design Consultant** and owner of Therapy Innovations, a manufacture of heat modalities for sports medicine, physical therapy, and chiropractic markets.

## **1978 to 2014**

**CEO** for EGC Enterprises Inc. a design and manufacture of graphite components specializing in high temperature fluid sealing and thermal management.  
Developer of the Thermawing Ice protection system and numerous ice protection components.

## **2000 to 2005**

**Invited Guest Pilot** flying research/test aircraft for NASA Glenn Research Center under Space Act, involving NASA's highly modified Twin Otter icing research aircraft.

## **2005 to 2007**

**Managing Partner** for Kelly Aerospace Thermal division, task with certification of the Columbia aircraft with Thermawing. Responsible for all aircraft projects and direction of certification teams other light aircraft.

**Test Pilot** for Columbia and Cirrus aircraft.

## **1970 to 1978**

**Pilot** flying various corporate and government contracts in addition to NASA aircraft.

## **1968 to Present**

**Certified Flight Instructor** instructing in several aircraft for over 20000 hours, both single engine, multi-engine, and turbine.

## **1966 to 1970**

**US Air Force** weapons system specialist Phantom F4

## **1968 to 1972**

**University** California Polytechnic University, Pomona, CA, with a BS in engineering. Emphasis in Aero, Mechanical and Manufacturing.

## **Research and Professional Background**

Member Fluid Sealing Association board of directors  
Member SAE AC9C committee for icing  
Member Cleveland National Air Show board of directors (past president)  
Member of the International Council of Air Shows  
Former International Sealing Distributors board of directors  
Former member of Ohio Technology Transfer Board  
Former air district staff officer for US Coast Guard Aux.  
Former Advisor to Western Michigan University Mechanical and Aerospace Engineering External Advisory Board

### **Professional Achievements:**

Holder of 7 US patents:  
5934716 De-Ice and anti-ice system and method for aircraft surfaces  
6194685 De-Ice and anti-ice system and method for aircraft surfaces  
6237874 Zoned aircraft de-icing system and method  
6279856 Aircraft de-icing system  
6330986 Aircraft de-icing system  
6667100 Ultra-thin flexible expanded graphite heating element  
6886233 Method for decreasing the thickness of flexible expanded graphite sheet (Graphene)

BAE Aerospace certifying pilot for C550, C560 reboot icing certification program

Technical director and actor for NASA icing general aviation video  
Technical director for NASA regional airlines icing video  
Technical director and actor for NASA updated tail plane icing video  
Golden Knights honorary member, two jumps into CNAS

Recipient of Citation Jet Pilots Association Gold Standard Safety Award  
Recipient of The Twin Cessna Flyers Master Pilot Award  
Recipient of the FAA's distinguished Wright Brothers Master Pilot Award

### **Presentations for:**

State of Ohio numerous business conferences  
SAE world icing conference (France)  
SAE icing conference (US)  
Boeing (Seattle Navy 737)  
Alaska Airlines  
Bombardier  
Cessna  
Cirrus Aircraft (jet)

Diamond Aircraft (jet)  
Piper  
FAA  
US Air Force (Wright Patterson) And others

### **Education and Training**

BS Engineering Cal Poly  
Pomona Valley Aviation flight schools  
Flight Safety  
Executive Flight Training  
Simuflight  
Simcom flight training  
US Air Force school of electronics  
US Air Force advanced weapons school F4  
US Air Force instrument flight school

### **Consultation and/or Deposition Testimony**

Columbia Aircraft (Bend Oregon)  
US Aerospace Corp. (Challenger Disaster)  
Hafif and Shernoff (Audie Murphy case 72-75)  
US Coast Guard Aux. in flight training manual for SAR

### **Flight Statistics:**

ATP Commercial Pilot #1778938 Single Engine Multi-Engine Instrument  
Flight Instructor Single Multi Instrument  
Type Certificates C525S, SIC Lear 31 Global 5000

Approximately 20,000 Hours Flight time  
100 Tactical Military  
2750 Civilian Turbine  
100 NASA  
15,000 Pilot In Command  
Numerous corporate and training hours

### **Aerobatic Training**

Pitts training with Sean D Tucker  
Columbia upset training Sean D Tucker  
L39 upset with Loft Training

