

SmartProbe® Air Data Systems

Advanced, integrated solutions for modern aircraft



U.S. Air Force photo by Senior Airman Christopher Callaway



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Image courtesy of Sikorsky, a Lockheed Martin company



Image courtesy Airbus

Where ingenuity takes off™



UTC Aerospace Systems



SmartProbe® Air Data Systems

The latest generation of SmartProbe® Air Data Systems combine multi-function probes and air data computers with stall warning and protection for a superior air data system.

The UTC Aerospace Systems SmartProbe Air Data System is a comprehensive, RVSM-compliant air data solution suited for a variety of new aircraft platforms and upgrade programs. The SmartProbe system integrates sensing probes, pressure sensors and powerful air data computer processing to provide all critical air data parameters, including Pitot and static pressure, air speed, altitude, angle of attack and angle of sideslip. The system renders greater accuracy from the air data output for improved performance and reduced life cycle costs.

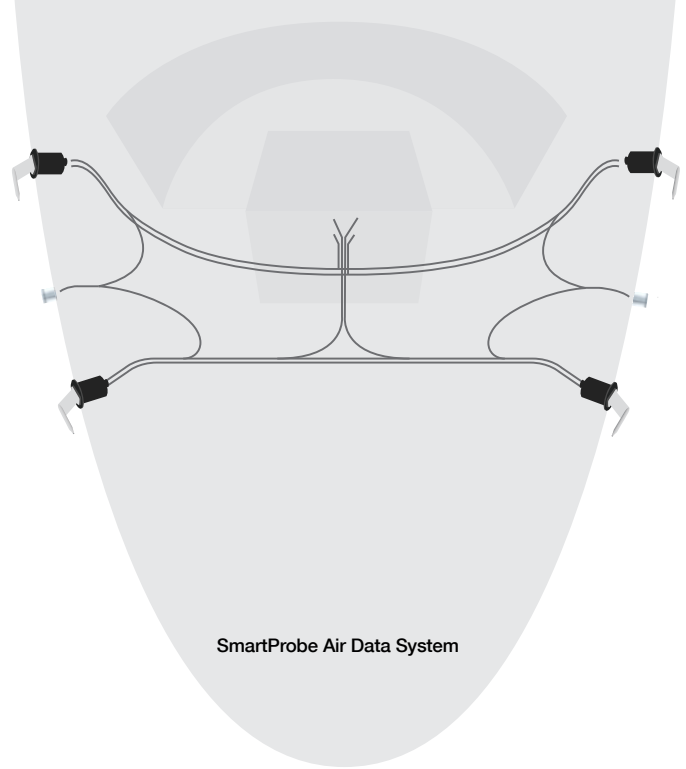
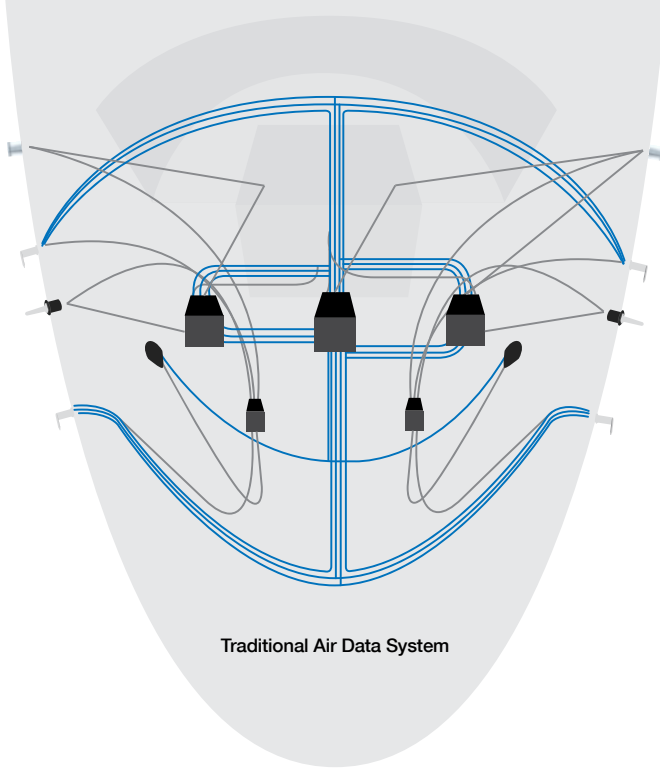
The SmartProbe system interfaces with a total air temperature sensor to provide static air temperature and true air speed.

Turn-key solutions for customized air data systems with unmatched support

OEMs and operators selecting the UTC Aerospace Systems SmartProbe Air Data System reap the benefits of a proven air data system from a Tier One integrator with more than 60 years of experience in air data measurement.

Our comprehensive air data solutions are tailored to your specific needs and include:

- Full system integration capabilities with a flexible design that integrates easily into flight control systems, including auto-pilot and fly-by-wire, as well as specialized applications such as gust load alleviation systems
- Comprehensive design and service support solutions that draw on UTC Aerospace Systems' dedicated air data experts, highly advanced wind tunnel technology and powerful analytical tools that enable complete air data system simulation
- Unmatched aftermarket technical support by a global leader in sensors and integrated systems, including our extensive Maintenance, Repair and Overhaul (MRO) network and UTC Aerospace Systems' 24-7 Aircraft on Ground (AOG) Program Performance
- Various installation options for ease of design, installation and maintenance, including outside-in or inside-out mounting and direct or flying lead connection



Simplified architecture for streamlined air data integration and aircraft operating performance

With highly advanced air data sensing technology and fewer parts by design, our SmartProbe Air Data Systems rise above traditional air data systems for their simplicity in architecture. Because each SmartProbe unit features its own air data computer to calculate air data parameters, all pneumatic tubing and considerable electrical wiring and other components are eliminated. The result is superior performance and operational reliability.

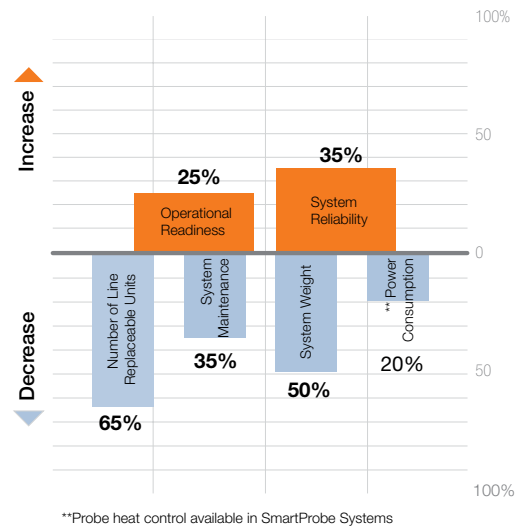
A complete SmartProbe Air Data System consists of at least one pair of single-channel SmartProbes; however, more typical applications include up to four dual-channel SmartProbes. The benefits provided by the advanced design of the SmartProbe Air Data System include:

- Lower design and manufacturing costs for OEMs due to fewer parts and a simplified architecture
- Reduced life cycle costs and improved system performance and reliability for airline operators and other organizations
- Improved system accuracy through the elimination of pneumatic pressure lag and improved altitude accuracy over flush static ports
- Simplified maintenance as parts are easily accessible for repair or replacement — fewer fuselage holes than traditional air data systems
- Decreased power consumption and reduced overheating through superior thermal management from a built-in heater controller
- Extended probe life and integrated design results in increased system mean time between failure (MTBF) due to the heater controller and durable constructions and materials

Strong return on investment by design

The simplified architecture as well as the superior materials and performance of our SmartProbe Air Data System delivers operational value and bottom line results, including:

Air Data System Improvements Using SmartProbe Architecture (Potential)



SmartProbe® Air Data Systems

Proven success in a variety of aircraft platforms and programs

Our Air Data Systems have demonstrated success on a diverse range of military and commercial aircraft, helicopters and unmanned vehicles. Their versatility and adaptability have made them the preferred air data solution for new and retrofit programs. As a premier Tier One integrator and aftermarket solutions provider, UTC Aerospace Systems stands ready to integrate with your platform.



Bombardier CSeries



HondaJet



Dassault Falcon 7X

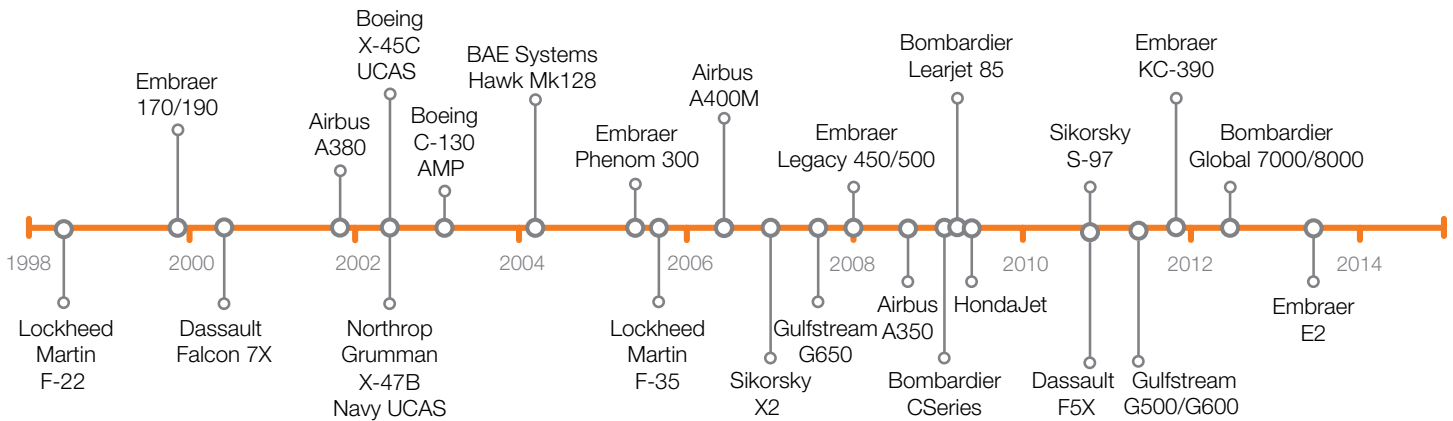


Airbus A400M



Northrop Grumman X-47B

SmartProbe® / Smart Port® Programs



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