

# Aircraft Systems

## Avionics

For over 60 years, SCI has crafted state-of-the-art avionics components for an array of airborne platforms. Our data acquisition units are scalable and flexible to meet the requirements of any platform.

## AIU

In the latest cutting-edge aircraft platforms, every last bit of data is critical for mission success. That is why SCI designed the Aircraft Interface Unit (AIU) to be the industry leader in advanced data-acquisition capabilities. With a superior combination of performance and flexibility, the AIU consistently outpaces the competition.

A high-performance, low-powered line replaceable unit (LRU), the AIU was designed to interface with various analog and discrete input/output (I/O) signals to a MIL-STD-1553 databus. Upcoming variants will interface with Ethernet and other high-speed databuses.

The AIU's compact form factor and rugged design make it the ideal choice for any system requiring a scalable and/or distributed data collection network.

## DCU

Today's advanced aviation platforms produce an abundance of information about every facet of every mission. To manage it all, aircrews can depend on SCI's Data Concentrator Unit (DCU).

Compact, lightweight and low-powered, the DCU provides a single, high-density conversion interface for any aircraft management system. Due to its flexible design, the DCU works seamlessly with an array of inputs and outputs from an aircraft's equipment and sensors, including discrete, analog and avionics bus data.

Fully programmable, the DCU's modular hardware allows for complete configuration to each platform's unique needs.

Originally designed for the Army's Common Aviation Architecture System (CAAS), the DCU is undergoing changes that maintain its currency while adding Ethernet and other future interfaces.

## Processors

For more than 25 years, SCI has designed, developed and manufactured system processors, data-acquisition devices and Advanced Interference Blanking Units (AIBUs) for rotary-wing, fixed-wing and flight-test aircraft on various military platforms.

SCI has provided system and weapons processors for the AH-64D Apache Longbow helicopter since the mid-1990s. In addition, we've supplied the AIBU for the F-16 and blanking units for the MH-53 helicopter.

What that level of experience, SCI can offer every customer an unmatched level of service and support.



# Aircraft Systems



AIU



DCU



FireComm



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## Setting the Standard For Mission-Critical Aircraft Systems

At SCI, we've been supporting the best in military aviation since 1961. With over six decades of continuous innovation in the Defense and Aerospace sector, we're a recognized leader in the design, development, manufacture, and sustainment of aircraft intercommunications and data acquisition systems for military and other government agency platforms.

SCI has extensive experience producing mission-critical components for a wide variety of rotary-wing, fixed-wing and flight test platforms. From NSA-certified secure wireless, to dynamic onboard data acquisition, our aircraft systems are setting the standard with cutting-edge features and significant Size, Weight and Power (SWaP) advantages.

With every new product release, we continue to push the envelope with new capabilities and technologies to benefit the aircrews of today and tomorrow: MOSA, SOSA, FACE™, TSN Ethernet, DO-178, DO-254 and System-on-Chip (SoC).

### Aircraft Communications

Innovation is what sets SCI apart as a leader in aircraft communications systems. It's also what allows us to consistently create advanced products for an array of military and commercial platforms.

From voice-command recognition to 3D audio, our industry-leading solutions provide critical capabilities wherever the mission takes you.

#### FireComm®

In today's high-tech aviation platforms, aircrews deal with a heavier workload than ever. With FireComm, SCI delivers a mission-critical edge.

Leveraging the latest advances in digital intercommunications technology, FireComm maximizes the operator's capabilities while taking up a fraction of the space compared to the competition.

FireComm is capable of interfacing to the system platform through either Ethernet, MIL-STD-1553B, or ARINC.

Flight-tested and proven, FireComm increases situational awareness and reduces task saturation with advanced voice warnings, static and dynamic 3D audio, and voice-command control capabilities.

SCI's lightweight, low-cost design is flight-tested and proven, delivering significant Size, Weight and Power (SWaP) advantages.

Ideal for military and other government agency platforms, FireComm eliminates single-point failures with a distributed architecture for maximum reliability.

#### FireComm + ISWICS

Available for use with FireComm (or legacy aircraft ICS systems) is SCI's Integrated Secure Wireless Intercommunication System (ISWICS)—the only NSA-certified TOP SECRET Full-Duplex Type 1 secure wireless solution on the market.



Together, FireComm and ISWICS provide all crew members with full access to SCI's powerful intercommunications capabilities.

Freed from the restrictions of wired systems, aircrews can enjoy an unsurpassed freedom of movement in and around the aircraft.

#### FireComm + VCI

Also available for use with FireComm is SCI's Voice Command Interface (VCI), which enables hands-free management capabilities for an aircraft's cockpit-control systems.

SCI's advanced command-recognition technology provides direct, heads-up access to mission management and communications functions.

### The SCI Advantage

With more than 60 years of experience in the Defense and Aerospace sector, SCI has developed a unique combination of resources and expertise that enable us to deliver superior products and services. Backed by the strength of SCI, FireComm provides:

- Unmatched aircraft ICS capabilities including the only NSA-certified TOP SECRET Full-Duplex Type 1 Secure Wireless Solution for voice and data, via ISWICS
- Increased situational awareness with static and dynamic 3-D audio and voice-command control capabilities.
- End-to-end lifecycle support, from design and development to manufacturing and beyond.
- Stringent engineering processes supporting DO-178 and DO-254 safety critical requirements.