Scalable Control Interface (SCI)

Scalable Control Interface (SCI) is a software control suite which allows Soldiers to simultaneously control multiple, disparate types of unmanned or optionally-manned aircraft and payloads. SCI's common user interface and scalable levels of control authority make Unmanned Aircraft Systems (UAS) capabilities simpler and safer to use than today's software. SCI is widely accessible via the Integrated Tactical Network (ITN) and mission command devices.

SCI increases UAS effectiveness by making the increasingly large unmanned aircraft fleet and resident payload capabilities widely available via the ITN. Proven Army mission command devices will host SCI software, making the capability easily accessible in dismounted, mounted, and command post operating environments at all echelons. The resulting paradigm shift to dispersed UAS operations makes the Army's UAS capabilities more mobile, agile, and flexible while extending reach.

SCI's modular, scalable design offers Soldiers, commanders, and battle staff the ability to rapidly access, utilize, and then relinquish the multiple variants of unmanned or optionally-manned aircraft and payloads available. Permissions based degrees of control authority ensure safe operation of aircraft and payloads by qualified users.

Key foundational capabilities include 'One to Many' command and control (C2) of UAS, common network architecture, tailorable permissions based access for operator and user C2 and receipt of sensor data, scalable/reconfigurable systems, cognitive workload reduction, high levels of autonomy, and integration within the common operating environment. The Army will employ UAS throughout the Multi-Domain Operations (MDO) battlespace. SCI's Modular Open Systems Approach (MOSA) and resilient architecture enable future growth and the rapid insertion of technology to deliver effective, relevant threat based capabilities.

SCI provides Army Aviation and supported ground forces a common interface to access and employ UAS platforms and payloads and accompanying hardware that can be right-sized for the unit and mission.

It is necessary for the Future Attack Reconnaissance Aircraft (FARA) Ecosystem's Anti-Access/Area Denial, Integrated Air Defense Systems penetration, dis-integration, and exploitation missions in order to target threat maneuver and fires formations. SCI is critical to the Advanced Teaming concept as FARA and Future Long Range Assault Aircraft will utilize SCI to interface with UAS. For maneuver formations, SCI controlled UAS enables standoff engagement of threat formations by defeating/degrading threat C2 nodes and early warning/passive detection systems. Artificial Intelligence enabled UAS will utilize SCI to communicate among coordinated UAS teams for both flight operations and payload/mission functions.

User
Mounted

Viewer
Unmounted

Owner
CP