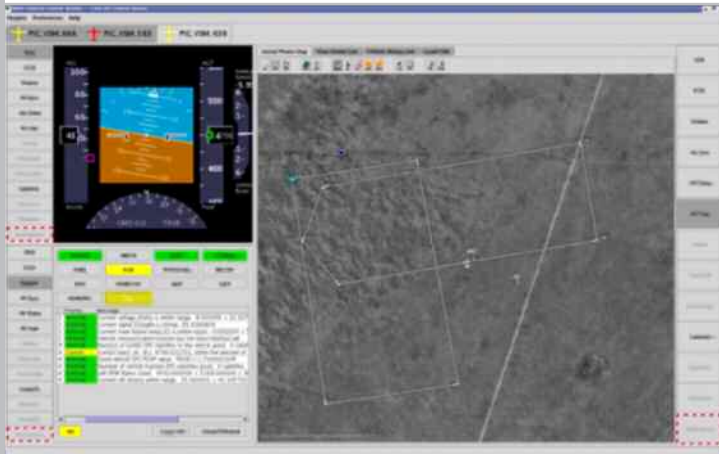




MVCS (Multi Vehicle Control System) Unmanned Aircraft C² System



Low-cost, highly reliable Unmanned Aircraft Command and Control System to support small unmanned vehicle systems development, integration, test and flight.

Key Features and Benefits

- STANAG 4586 and JAUS compliance
- Multiple, dissimilar concurrent control of vehicles
- Advanced, modular, plug-in based architecture
- Scalable system from small to large footprint
- Network-centric interfaces
- Human factors tested to reduce operator workload
- Field tested, flight ready



Description

Raytheon's Multi-Vehicle Control System (MVCS) provides an open architecture to monitor, display and control multiple, dissimilar unmanned vehicles concurrently with advanced vehicle control capabilities. The MVCS implements both NATO Standardization Agreement (STANAG) 4586 and Joint Architecture for Unmanned Systems (JAUS) for controlling unmanned vehicles and systems. MVCS combines Raytheon's expertise in building ground stations with new "net-centric" technologies to provide the best possible tools for today's unmanned systems.

Operator Interface (CUCS)

The MVCS Core UAV Control System (CUCS) provides the primary software component with which the operator interacts during vehicle flight. Most vehicle operations are carried out through the MVCS CUCS, including vehicle tasking, system monitoring, mission/route/ waypoint planning and payload tasking, receipt and dissemination.

The MVCS CUCS architecture was designed with extensibility in mind and can be extended to include capabilities far beyond the initial design. The system is human-factors engi-

neered to reduce operator workload. Every component of the user interface allows for functionality to be tailored based on customer needs, operator preference, vehicle/payload capabilities and requirements. Existing plug-ins include mapping and mission planning, flight displays, vehicle status panels, digital video displays, and advanced payload displays.

The MVCS software easily adapts to a variety of platforms, including Microsoft Windows, Sun Solaris, Apple Mac OS X and multiple Linux distributions. MVCS provides developers with access to net-centric technologies (Java/J2EE) and adapts to web-based service-oriented architectures (SOA) such as Distributed Common Ground System (DCGS).

Vehicle Command & Control (VSM)

The MVCS system includes several Vehicle Specific Modules (VSMs) developed for a variety of vehicles, including unmanned air vehicles (UAV), unmanned ground vehicles (UGV) and unmanned surface vehicles (USV). Each VSM provides capabilities specific to a vehicle and extends native platform functionality. MVCS includes VSMs for the Silver Fox, Manta, Cobra and Raven UAVs, and the Navy's USSV unmanned surface vehicle.

MVCS VSMs augment vehicle platform capabilities. Some MVCS VSMs contain waypoint manager components that extend capabilities for autopilot systems with limited waypoints. Additionally, MVCS VSMs offer enhanced interfaces to network-centric systems providing position, health and status, and mission data for currently deployed systems.

Raytheon's combined experience with VSMs and STANAG 4586 enables tailoring of a VSM to match the characteristics of many existing and future unmanned vehicles.

Intelligence, Surveillance and Reconnaissance (ISR)

The MVCS supports end mission goals of the warfighters and intelligence analysts. It is an open, modular system which, depending on the mission, ranges from: small, handheld systems in support of special operations, laptop-based vehicle systems, desktop-based command tents, and rack-based command centers. Payload support within the system includes electro-optical (EO)/infrared (IR), live streaming video, and still imagery. The intelligence gathering capabilities can be redistributed to back-end systems to provide analysts with the live, on-demand tactical and strategic intelligence.

For further information contact:

Intelligence and Information Systems

7700 Arlington Boulevard
Falls Church, Virginia
22042-2900 USA
iismedia@raytheon.com

www.raytheon.com



Customer Success Is Our Mission