

UGCS

Unified Ground Control Station

The Unified Ground Control Station (UGCS) software application provides a unified UAS command and control interface that seamlessly scales across different hardware devices, Operating Systems, (Windows, Linux, and Android), and display resolutions. The underlying software is based on non-proprietary, open, Unmanned Systems Control Segment (UCS) Modular Services Oriented Architecture (MOSA). The interface from the UGCS to the unmanned aircraft is STANAG 4586 compliant. The UGCS contains a host of user-friendly features designed by Unmanned Aircraft System (UAS) operators and human-factors experts. The UGCS has flown everything from small quadrotors to a large unmanned Black Hawk[®] helicopter, including several tactical fixed-winged and Air Launched Effects (ALE) platforms.

RTCA
DO-178C



UNIFIED GROUND CONTROL STATION (UGCS)

Kutta's Tactically Aware Controller (K-TAC):

The K-TAC provides the end user with a rugged, COTS, Android phone based robotic controller. The K-TAC can be worn as a chest mounted device, removed and placed in a pocket, or held with one hand. It can also be integrated with the Android Tactical Assault Kit (ATAK) for situational awareness, and Kutta's Unified Ground Control Station (UGCS) software for the control of unmanned systems.



Tablet & Laptop:

Kutta can also provide the application on military rugged, industrial or COTS tablets and laptops. The user interface is configured to natively support touchscreen input, mouse, and/or COTS game-controllers. The software application is typically configured to run on Windows or a customer-specific versions of Linux.

Foundation:

- Army STANAG IOP Compliant
- DO-178C Certifiable Architecture
- OS Independent (Linux, MS Windows, CentOS)
- Open, Non-Proprietary Interfaces Based on UCS
- LOI 2, 3, 4 (MUM-T & Class C CUCS), 5 (Class A & B Handoff)
- Embedded Air Vehicle and Video Simulation & Training Capability
- VSMs (i.e. Piccolo, Mavlink, Kestrel, etc.)
- Supports Fixed-Wing, Quad-Rotor, VTOL, Air Launched, and Hybrid Air Vehicles

Multiple Payload Control Options:

- EO/IR Pan, Tilt, Zoom
- Laser Pointing & Designation
- Center Field Of View (FOV) Coordinates
- Snap Geo-Rectified Photo with Metadata
- MGRS & Latitude and Longitude Coordinates
- Point and Click Coordinates in Video Window to Slew

Features:

- 2D/3D Displays
- Heads-up Displays
- 3D Sensor Footprint
- Pre-Mission Planning
- DO-178C Auto-Routing
- Safe Multi-UAS Control
- 2D AGL Vertical Profile
- Color-Coded Flight Legs
- Warnings, Cautions & Alerts
- Radio Frequency Line of Sight Analysis
- Autonomous Multi-Vehicle Teaming
- Terrain and No-Fly Zones Avoidance
- Waypoint Planning (add, edit, delete, airspeed, altitude (MSL/AGL))
- Autonomous Route and Area Search Based on NIIRS Rating