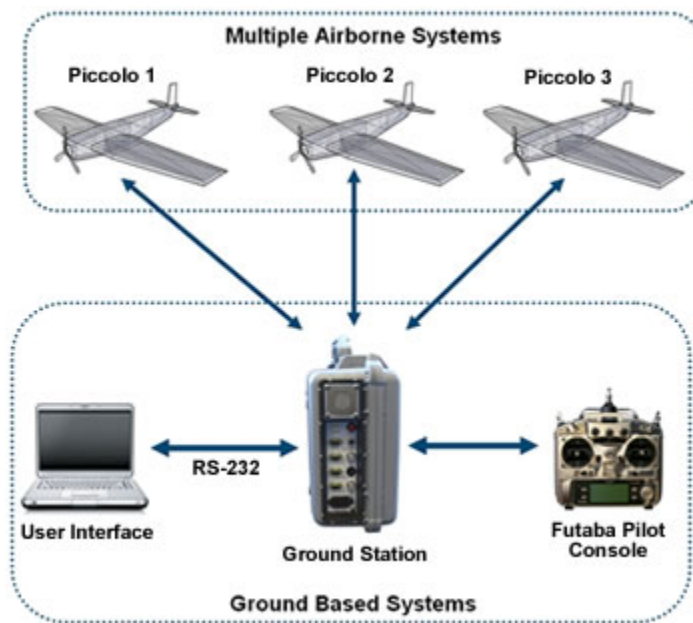




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CONTROL STATION

The ShadowHawk™ UAS utilizes a Piccolo SL portable Ground Control station (GCS) for realtime connectivity to the aircraft. Piccolo Ground Stations are based upon the same hardware that makes up the airborne component of the system. The ground station is responsible for managing the wireless link to one or more Piccolo avionics, sampling the manual pilot console, supplying differential GPS corrections to the avionics, and serving as a bridge to the operator interface.



The GCS provided by CloudCap Technologies can provide the following capabilities;

Enhanced Flight Planning Support

Waypoint Insertion

Context Menus for common functions.

Route Copy between aircraft.

Multiple aircraft on single map.

3-D Views. High performance smooth zoom
2D and 3D terrain mapping, easy to use like popular 3D mapping software. Terrain database supporting DTED and SRTM.

Integration with web mapping servers for elevation and imagery. Intuitive Primary Flight Display and graphical EFIS and ability to change airspeed, altitude, and heading commands from EFIS display. User customizable dockable windows so displayed data can be configured per user requirements. Status bar provides high-level alert interface.

The interface between the GCS and the aircraft is established on a (b) (7)(E) with the following features;

- A. GPS/INS with aided AHRS backup for graceful degradation in GPS denied environments.
- B. Plug and play support of peripherals including transponders, magnetometers, sat-comm modems, RTK GPS receivers, laser altimeters, and flight termination.
- C. Radio frequency options for internal data links.
- D. Auto Assist manual flight modes.



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- E. Flexible drag and drop flight plan generation and updates.
- F. Powerful simulation tools. Single CPU software simulation in addition to complete system Hardware-in-Loop (HWIL) simulation, requiring less control law tuning.
- G. Included in FAA type certified and NAVAIR certified integrations.