

Control Station: (description of number of stations, remote control, locations, system specifications etc.)

The control station for the Kestrel-T UAS aircraft consists of a primary and backup COTS ground stations from Cloud Cap Technology, manufacturers of the Piccolo autopilot used in the Kestrel-T.

Piccolo's Ground Station is 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.

A ground station consists of a computer, hand controller for manual flight, ground station for uplink/downlink command, control, payload and telemetry data and UPS for backup. Additionally, ground station components feature battery backup as well.

(b) (3), 10 U.S.C. § 130

A black rectangular redaction box covering the front view of the Piccolo Ground Station. The text "(b) (3), 10 U.S.C. § 130" is printed in red at the top left corner of the box.

(b) (3), 10 U.S.C. § 130

A black rectangular redaction box covering the back view of the Piccolo Ground Station. The text "(b) (3), 10 U.S.C. § 130" is printed in red at the top left corner of the box.

Piccolo Ground Station, front and back view

Piccolo Hand Controller

The Piccolo autopilot system utilizes Microhard MHX-910 OEM radios. These radios utilize frequency hopping in the 902 to 928 MHz frequency range and have an advertised distance range of up to 60 miles LOS with gain antenna.

Ground antenna consists of 6 dbi antenna mounted at the top of a 30 – foot mast with a 1 watt power amplifier to insure communications.

Additional items considered as part of the Kestrel-T control station are two-way radio communications for all team members, a spectrum analyzer and assorted safety equipment.



