

## Puma AE Ground Control Station (GCS)

The system includes two GCSs to facilitate handoff, multiple Air Vehicle and RVT operations. The VO controls the Puma-AE Air Vehicle using the GCS. The GCS provides the VO with full control of the Air Vehicle during launch, flight and landing, along with full control of the payload. The GCS allows operations by a standard two-person crew; however, if operation by a single-person is required, the GCS allows the VO to control all data and inputs via a single Hand Controller.

The GCS includes an Itronix GoBook laptop for mission planning and management, payload automatic tracking through AVTracker software, still and video storage, image processing, video playback and transfer, automated logbook, and system component tracking. The Itronix GoBook includes a 1.83 GHz processor, 3 GB RAM, DVD/CD-RW, external 80 GB hard drive (with heater), media bay battery, and external GPS antenna.

A Kestrel 2000 wind meter is provided.

<b>CAUTION</b>
Monitor GCS battery to ensure adequate voltage. Failure to maintain adequate battery voltage will result in Loss of Link (LOL).

The GCS weighs 16.4 lb. with laptop. The GCS is equipped with two battery connectors to allow continuous operation, even while hot swapping batteries. The GCS, to include the laptop, will operate from provided batteries BB-2590 (90 minutes), BB-2557 (45 minutes) and AV battery (145 minutes). The GCS can also be powered by 110 or 220 V AC or DC power using the provided power supplies and DC power attachments. The GCS cannot be powered by a 12 V vehicle battery. In addition, antenna mounting accessories are included, for mounting the antenna to boats, windows, railings, handles, or other suitable locations.



**Figure 1 GCS Set Up**

## **Puma AE Ground Control Station (GCS)**

<b><i>CAUTION</i></b>
Do not turn on uplink transmitter when using a GCS as an RVT. If the transmitter is turned on, the RVT may inadvertently control the Air Vehicle.

The second GCS can be used as an RVT. The RVT is used to view real-time video from any location within range of the Air Vehicle. To operate a GCS as an RVT, leave the uplink antenna disconnected and transmitter switched off.