Ground Control Station

The CIRPAS Ground Control Station (GCS) is a standard General Atomics Predator GCS. Features of the GCS include:

1.   Aircraft Command & Control: Line of Site Uplink and Downlink with the Predator Aircraft through the Ground Data Terminal (GDT). The C-Band Air Data Terminal (ADT) utilizes two transmitters (TX#1 & TX#2) and two   vers   RX#2). The transmitters and recei   perate between (b) (3) and (b) (3)   and allow frequency selection in (b) (3) steps. Transmit   ar   ble to high and low power outputs   wer provides about (b) (3)   of output, and low power provides about (b) (3) of output (intende   intenance only). The transmitters send a combined data stream of analog video with digital telemetry data modulated onto a sub-carrier. The transmitter and receiver frequency selection is software limited so that the transmit and receive functions do not interfere with each other. Normal operation is to utilize only one uplink data stream and both downlink data stream. One downlink data stream would normally include aircraft telemetry data plus video from the nose camera. The other downlink would normally include redundant telemetry data plus video from a reconnaissance load. Downlink   ncies should be separated by a minimum of (b) (3) (b) (3) and up   (b) (3)   he a   ies default to nlink: (b) (3)   and (b) (3)

a.   Downlink: (b) (3)

b.   Uplink: (b) (3)

2.   The NPS/CIRPAS GCS Pilot/Payload Operating workstation incorporates two control consoles that allow a pilot and a payload operator to control/monitor the aircraft and its subsystems.

3.   Two standalone power sources during flight operations (shore + generator or two generators), as well as a battery pack exists for a third power source which is integral to the GCS Un-interruptible Power Supply (UPS).

4.   The CIRPAS GCS has a redundant radio system in order to communicate with Air Traffic Control and internal Command and Control.

Radio Qty

Description

Function

Freq Range

(MHz)

Freq Spacing

(b) (3)

(b) (3)