An assigned Mission Commander maintains oversight for the operation. This system incorporates two GCS with an ability of transferring control from one to the other. For launch/recoveries, an additional UA operator is located in the Portable GCS for redundancy. Radio contact is continuously maintained with ground observers and with air traffic control (ATC) during missions. Cellular telephones will be utilized as a alternate means of communication.

Within the GCS environment, capabilities exist to transmit and receive voice and data by radio, secure telephone and internal/external intercom. This array of communication systems, allows personnel to communicate within the GCS environment as well as with outside sources. The communications environment allows for personnel to transmit and receive in a secure and non-secure communications. The GCS communication mediums are:

1. SINCGARS Radios (Long and Short Range)
2. UHF/VHF Radio (Secure and Non Secure)
3. Hand Held Radio (AN/PRC-148)
4. Data Transmission/Reception via SINCGARS Radios
5. Internal/External Intercom Communications
6. Tac Modem

INTERCOM COMMUNICATION

The GCS shelter has intercom capabilities for internal operators (AVO, MPO, and Mission Commander), Driver/passenger, and external personnel. Any one of the operators can transmit and receive voice through the intercom system in the GCS. Capabilities exist to allow the user to hear and speak using a push to talk button located on the headset cable. There is a Push-To-Talk (PTT) Switch on the belt clipped headset interface cable. This switch has three positions, a center OFF, a momentary RADIO PTT, and an ICS PTT position. In the OFF position, the headset microphone is disabled. In the RADIO position it is possible for the headset user to talk over a radio. In the ICS position it is possible for the headset user to talk over the intercom. The AVO and MPO stations are equipped with a footswitch that allows the operator to talk hands free. The intercom system is fed to the SINCGARS cab and shelter radios and the UHF/VHF radio.

GDT FUNCTIONAL DESCRIPTION

When the GDT is emplaced and functioning, it assumes its role as the communications and interface center for the GCS, AV, TALS and PGCS (if co-located). Uplink commands from the GCS are routed to the GDT, where they are fed to the appropriate transceiver and transmitted to the AV. Downlink telemetry and video is routed from the appropriate transceiver/receiver to the GCS for use in accomplishing mission goals, flight operations and data recording.