



The U.S. Customs and Border Protection (CBP), Office of Air and Marine (OAM), utilizes Ground Control Stations (GCS) to operate its Predator B unmanned aircraft systems (UAS). The GCS design incorporates advanced electronics and software with lessons learned from extensive operational experience. A standard OAM GCS consists of modular software-configurable workstations installed in a ground and air-transportable shelter.

Each GCS contains the following:

- Pilot and Payload Operator (PPO) workstations
- Center equipment rack
- Multi-function Workstations (MFWs)

PPO workstations are used to control the aircraft and the mission payloads and to monitor map displays, imagery and system status. The pilot normally uses the left-hand workstation and the payload operator uses the right-hand workstation. The identically configured workstations provide redundancy in the GCS and additional level of safety and reliability. Missions may be preprogrammed by pilots in the GCS prior to takeoff. Pilots can change preprogrammed mission parameters during flight or hand off aircraft control to other strategically located GCS.

The center equipment rack houses a variety of supporting equipment including a weather monitoring unit, a VHF/UHF radio interface, and an intercom control unit.

The GCS intercom/radio systems allow operators to communicate through an aircraft-based radio to send and receive voice information to/from command and control networks, Air Traffic Control, ground units, other aircraft and control stations.

MFWs can be configured to provide numerous capabilities, including:

- Radar and electro-optical/infrared imagery
- Payload control
- System monitoring

GCS to aircraft connectivity is maintained by a line-of-sight data link within 100 nautical miles or satellite data link beyond 100 nautical miles. Both communications links are dual redundant.

