

Cache Junction Flight Plan



Figure 1: Flight Plan Map

Figure 1 shows a farm owned by Utah State University. They have agreed to let us fly the UA over this land for tuning and testing. The red circle in Figure 1 has a radius of 1 mile and defines the area in which the observer can always see the UA. The flight plan is designed so that if the UA flies outside this boundary, it will fly back to the Home waypoint and circle above it. This circle and all the waypoints can be observed in the kmz file attached to the flight operations.

Tuning the UA will require both manual and autonomous flight. Manual flight will be used to trim the elevons and tune the roll and pitch of the UA. Autonomous flight will be used to tune the altitude and navigation control. This may include circling above the STDBY waypoint, flying a straight line between waypoint 1 and 2, flying a figure 8 between waypoint 1 and 2 and surveying an area within the 1 mile radius. All flight operations will take place below 5125 ft MSL.

After the UA is tuned, auto takeoff and landing will also be tested on this sight. The Bungee waypoint (Figure 2) is used for takeoff and the AF and TD waypoints will be used for landing.

The same flight operations above will also be used to test new software, navigation routines and hardware after the UA has been tuned.

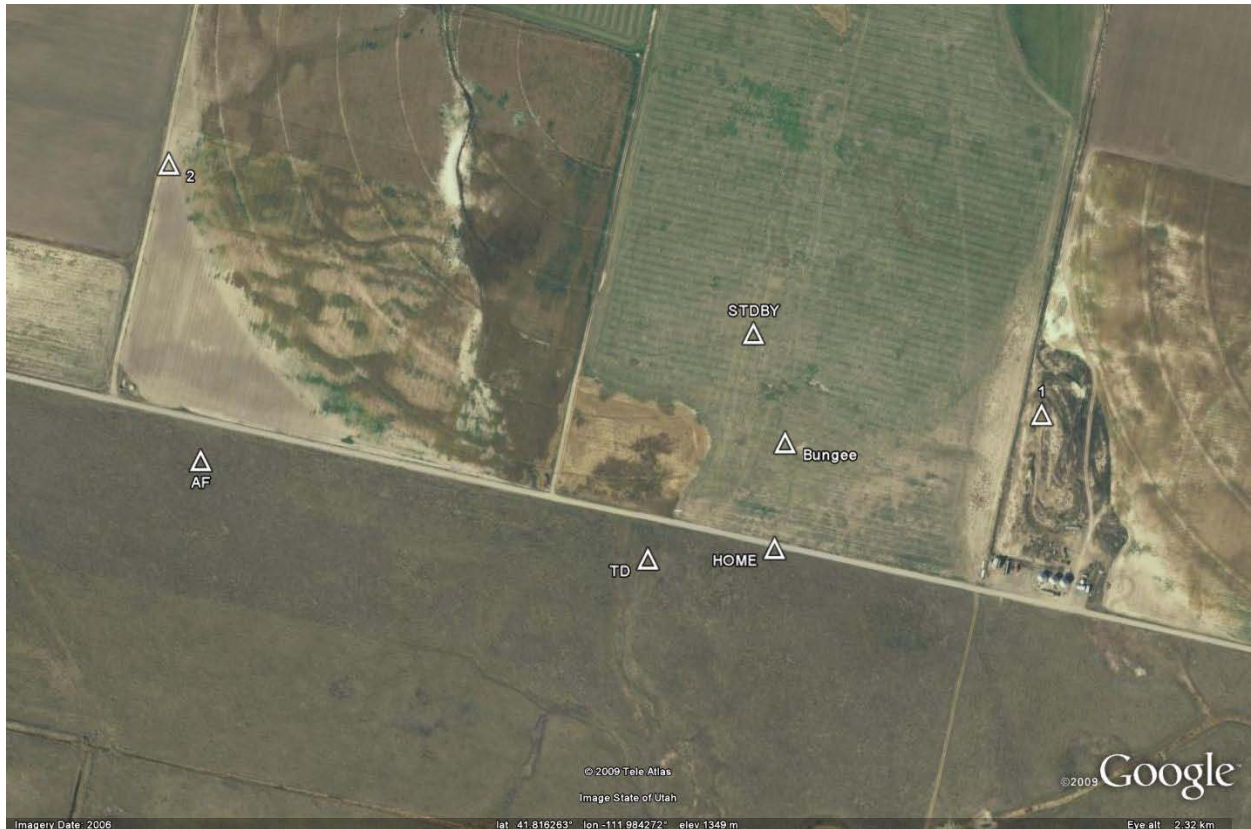


Figure: Ground Station