

## **Rover UAV LOST COMMUNICATION PROCEDURES**

**Summary:** This document refers to procedures that the Piccolo II autopilot executes in the event that communication is lost between UAV and ground control station (GCS).

The Piccolo II autopilot has the ability to pre-set software routines to handle loss of communication between the autopilot and GCS. The Rover, when fitted with the autopilot instead of manual radio control, uses the standard “Return Home” routine. These are the steps that are taken if communications are lost:

1. If comms are lost for more than 5 seconds, the autopilot executes the “Return Home” procedure.
2. Under “Return Home” the UAV will abort the current route and begin a gentle turn to point itself toward the “Home” waypoint (waypoint 99).
3. The UAV will begin flying toward the Home waypoint.
4. Upon reaching the Home waypoint, if comms have not been restored, the UAV will begin circling at a 300 meter radius.
5. If comms are not restored before the battery voltage(s) reach a preset level, the UAV will spiral down and land.

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