

Description of Lost Link/Mission Procedures JPL Titan Aerobot Testbed Flights

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The following steps are taken if the RC link between the teleoperation pilot and the blimp is lost:

1. The airship on-board controller is design to automatically enter a safe mofe consisting of a rudder down and over command to put the blimp into a downward spiral flight path.
2. Attempt to regain control by having the pilot move towards the blimp, thereby reducing the transmitter range.
3. The autonomous flight operator will attempt to control the blimp through the 900 MHz telemetry and control link. If control is achieved, the operator will command the blimp to return to base. If the return to base command is not accepted, the operator will command an engine shut down and a vent valve open to discharge helium gas and force the blimp to descend.
4. Ground crew will move to the blimp location for hand retrieval after it reaches the ground.