Lost Link Mission Procedures

There are two potential lost link situations that would require immediate mission termination and cause the flight crew to begin lost link procedures.

Situation One: In the event the downlink data is lost, video and aircraft health / position information, the operators can use the system features to navigate back to the launch and recovery site, where the external pilot can take visual control of the aircraft and land normally.

Situation Two: In the event the command and control data link is lost, the aircraft will perform a return home flight profile. This profile can be a pre-programmed route, Lost Comm Route, or a direct flight to a specified waypoint.

The UAS contains two redundant command and control uplink signals in different frequency bands. The link signal quality is monitored by the IP. In the event one of the signals begins to degrade it is a requirement for the IP to cease the mission and prepare to recover the aircraft. If both command links degrade, the aircraft, after 15 seconds, will turn towards the nearest waypoint in the Lost Comm Route and continue to the return home point. Once it reaches the return home point, the aircraft orbits the return home point until the command link is restored, or the aircraft runs out of fuel, at which time the aircraft will impact the earth.