Dakota UAS Lost Communication Procedures

Air vehicle- The Dakota UAS flight computer has a watchdog timer which monitors the data link status. In the case that the data link is broken for more than a pre-determined time limit the on-board flight computer will initiate a Return To Base (RTB) command, where the R/C operator will take control and recover the vehicle (see also Lost Link Procedures).

Ground- The internal (ground station operator) and external (R/C) pilots are separated by only a few yards in distance and can typically communicate orally during all phases of operations (except air vehicle run-up just prior to launch). Nevertheless, hand-held radios are used for primary communication between the internal pilot, external pilot and the observers. Radios are checked for operability and power status before each flight.

Ground to air- A handheld 2-way aviation radio will be used to monitor the unicom frequency at LGU and make flight call-outs during launch, recovery and in the event of an emergency. A com check with the FBO or airport manager will be made prior to each flight, and the power status monitored. A back-up air-band radio will be available to the PIC in the case the primary fails.