

**Communication of pilots with each other and with UAVs.** Two pilots control the UAV. The main pilot controls the UAV with one 72 MHz PCM RC transmitter and determines when the UAV will be turned over to the autopilot. The second pilot is poised to take control of the UAV with a second RC transmitter operating on a different channel, should the flight controller fail to operate. Both pilots stand within a meter of one another. An additional observer, also standing within a meter of the pilots, monitors the airspace within the vicinity of the farm for any other aircraft occupying the same airspace. All of our flights are conducted within a range of 1,000 ft of the pilots in any direction. The UAVs are always kept within the line-of-sight of the pilots and the observer.

**Communication of ground control station with UAVs.** When the pilot turns the UAV over to the flight controller, the laptop computer communicates with the UAV via a 900 MHz radio modem [as shown in **FIGURE 3** in the ground control station section]. At any time, either pilot can take back control of the UAV via either of the RC transmitters.