

## YMQ-18A Communications Systems Description

1. **Data Link (DL).** Communication with the aircraft is provided by dual-redundant, two-way Ku-band data links.

Ku-band system: up/downlink: 14.00-14.70

up/downlink: 15.00-15.50

2. **Lost link/mission abort procedures.** The GCS maintains a constant uplink/downlink with the YMQ-18A. If the uplink signal is not received for a specified length of time, the aircraft performs its lost link protocol, including returning to land at a pre-designated position, which is usually the aircraft launch point.
3. **ATC Communications.** Prior to vehicle launch and during the entire flight operation, UAS operators in the Ground Control Station will be in two-way radio contact with KVCV tower (VHF 118-124 MHz).. A ground observer will maintain visual contact with the aircraft at all times while within the Victorville class D airspace, and maintain two-way contact with the UAV Operator to warn of potential hazards. When a chase aircraft is used, the Ground Control Station will be in continuous contact with that aircraft.

In the event of lost VHF communication with ATC, communications will be re-established to Victorville tower by ground line phone, by cell phone, or if all other means fail, by a physical trip to the tower by a Boeing staff member, who will then reestablish communications.