

Exhibit: Question 5, FAA Antenna Sketch

Five transmitters will be utilized as part of a federal research contract. These include two payload transmitters mounted on a single high altitude balloon (one is designated an air-to-ground transmitter and the second is a designated crosslink transmitter), two transmitters mounted on two separate Mobile Ground Stations (MGS) (one per MGS), and a single ground beacon transmitter. The launch point of the balloon/payload is Elko, NV and current predictions are that the balloon will move east with flight termination (impact) in the Carr, CO area South of the Wyoming/Colorado border. The maximum altitude of the balloon will be 95,000 feet. Maximum duration of the flight (payload/MGS transmitters active) is 36 hours. Minimum duration of the flight is 24 hours. Only one flight will occur in a launch window as specified in the Start/Stop dates of this application filing.

The balloon overflight area is estimated to be over a rectangular geometric area bordered by the following points:

1. 42.604086 N, -115.800974 W
2. 39.160048 N, -115.723969 W
3. 42.247927 N, -104.129773 W
4. 42.472056 N, -104.379687 W

The antenna will be fixed to a high altitude balloon operating at a target altitude of 90,000 ft (maximum altitude of 95,000 ft) during the float phase, above commercial aviation cruising altitudes. During payload ascent/descent an ADS-B transponder will be active notifying aircraft in the vicinity of the balloon/payload position. The payload radios will be active during ascent, float, and descent phases of the flight.

The launch area stationary MGS will be deployed at the Elko, NV launch location (40.827953 N, -115.780268 W). The forward deployed MGS terminal and the ground beacon transmitter will be primarily located near the Wendover, UT Airport (40.718903 N, -114.032749 W) with a region of potential operation along Interstate 80, across the Utah salt flats to an eastern limit at 40.745650 W, -112.652940 N.

The launch area stationary MGS will be active during the pre-launch, launch, ascent and float phases of the flight. The forward deployed MGS terminal and the ground beacon transmitter will be active during

the ascent and float phases of the flight.

