Question 4: Directional Antenna Information

The Ground Radio System (GRS) has up to a 4x4-element phased array antenna. Beamwidth is 6^{O}, and it's electronically steerable $\pm 60^{O}$ in elevation and azimuth. It is transportable, so orientation relative to True North will change to optimize coverage relative to the flight path of the Airborne Radio System (ARS).

Steering throughout 360^{O} in azimuth and 90^{O} in elevation will be accomplished either mechanically/manually or electronically, depending on maturity of the development of our GRS deployment. Either way, the objective is to overlay the high-gain 6^{O} beamwidth on the distant platform carrying the ARS.

Question 5: FAA Antenna Sketch.

The GRS will typically be mounted at the top of a mast at a height ≤ 30 ft above ground level. Below is a picture of a representative antenna, measuring 75 x 115 x 20 mm.