

## Experimentation Description

Purpose and duration of the license. STA requested to obtain permission to use both fixed and mobile emitters that will facilitate testing of S-band radar equipment aboard General Atomics MQ-9A/B unmanned aerial system (UAS). Ground and flight tests involving the S-band radar will originate at El Mirage, CA. Area of flight during this development is the locally approved airspace in the vicinity of El Mirage, CA at a maximum altitude of 12,500 feet MSL. Requested length of time required to complete testing is 24 months.

Make and model of transmitter & transmitting antenna. QUASONIX QSX-VSR-110-10S

Geographical coordinates of transmission. 45 km radius with a center at El Mirage (N 34 deg 37 min 30 sec, W 117 deg 36 min 18 sec) at a maximum altitude of 13,000 feet mean sea level. The UAS will originate and land at El Mirage and remain within the confines of a 45km radius. GA-ASI has previous approval from the FAA to operate company-owned aircraft within this airspace.

Desired frequency and associated emissions. 2200-2400 MHz, with a mean power out of 10 watts and the emission designator 4M80G1D.