

General Dynamics is seeking an FCC license in support of a radar experiment. The experiment involves mounting an X-band radar on a 80 ft existing tower in Vail, Arizona in order to study the radar return of objects around the tower. The radar is manufactured by Cassidian, and is model number Spexer 1500 or 2000. Selection of the particular radar model will be dependent on the results of the experiment. Both Cassidian systems have an antenna gain of 35 dBi at frequencies between 9.2 and 10 GHz with an average transmit power of 10 W. The antenna is an active electrically scanned array which provides 120 degree scanning in the azimuth plane, which is supplemented with 360 degree mechanical rotation in azimuth. The antenna is able to scan in the elevation plane above and below the horizon by 20 degrees. Further details of the antenna are described in the antenna exhibit.

The radar system will be located at N 32 0' 58", W 110 41' 47". This location is outside the city of Vail, Arizona. The terrain around the tower is a desert valley. There are hills and mountains north and south of the tower. The tower is roughly 20 miles from Tucson International Airport.

During the experiment, the radar system will be in operation no more than 50% of the time, with the majority of operation occurring during daylight hours. The General Dynamics team based in Tucson, AZ will be responsible for the day-to-day operation of the radar system.