

## Northrop Grumman Systems Corporation Application for STA

Northrop Grumman Systems Corporation (NGSC) applies for a two-year experimental license to test a ground mobile transmitter platform that, through software, will modulate the signal on an RF carrier to excite one of four antennas to transmit the signal in different spatial quadrants. The transmitted signal will be received on an airborne platform for analysis and evaluation of spatial orientation / direction. Up to eight mobile units will be used to transmit within a 25-kilometer radius.

The transmitted pulse width will be a minimum of 333 nS. PRF will be 1.5 MHz maximum with a maximum duty cycle of 50%. The modulation codes employed will be Pulsed CW, Pulsed LFM, BPSK, & QPSK. Transmitter output is 5 watts peak. Losses of 0.5 dB result in an ERP of 17.3 watts peak. The antenna is manufactured by ZDA Communications, model ZDADJ928-8YG, and exhibits a gain of 8 dBi. Either horizontal or vertical polarization will be employed. For vertical polarization, the main beam width is: AZ 90 deg, EL 60 deg. For horizontal polarization, beam width is: AZ 60 deg, EL 90 deg.