

Exhibit in support of application 0010-EX-ML-2010.

We are requesting the addition of 5 new frequencies to our existing license with call sign WA2XNA. These frequencies will permit the use of dual-frequency transmissions in our Doppler On Wheels (DOW) weather research radars. The DOWs are "base funded" through grant NSF-ATM-0734001. The frequency upgrades are supported through a "stimulus" grant, NSF-ATM-0946926. Individual grants support 2-4 deployments of the DOWs per year and are awarded each year. We operate nationwide, sometimes on very short notice, to conduct research in severe weather such as tornadoes, hurricanes and snow events. In addition we operate on short notice to study wild fires, and are on standby to observe such phenomena as volcanic eruptions or man made disasters that may emit plumes of fire/debris into the atmosphere.

The new frequencies that we are requesting are:

9.400 GHz

9.450 GHz

9.500 GHz

9.550 GHz

9.600 GHz

Our transmit characteristics will be typical for weather radars. We will be using 250 kW peak power pulses, 0.001 duty cycle, resulting in average power of 250 kW (actually lower due to system losses). We will be using antennas that have approximately 40 dB of gain (1 degree beams), resulting in ERP of 2.5 GW peak and 25 MW average.