

Explanation of Need for Experimental License, Antenna Description

Northrop Grumman Systems Corporation ("NGSC") hereby requests authorization to operate a fixed experimental radio station facility with four mobile units that will be tested in each of the three locations described in the attached Form 442 application. The equipment will be demonstrated to Government end users and is expected to fill a void by creating a reliable and easily deployed, network-based battlefield information sharing platform. This equipment is designed to offer a self-repairing, high-speed, narrow-bandwidth network capable of operating under extremely challenging environmental conditions. New and proven technologies are integrated as part of error correction and interference rejection packages that can be rapidly deployed by a wide variety of Government end users in battlefield conditions.

The equipment NGSC will test includes one fixed antenna (affixed to a building at each location) and four mobile 3-element circular patch arrays with right-hand circular polarization and a 30-degree beamwidth at the half power point. The fixed antenna will not extend more than six meters above the roofline of the buildings to which it is affixed, and each of the mobile antennas will stand approximately 4.6 meters above ground level at the three sites described in the attached application.

NGSC requests a one year authorization, to begin on November 14, 2009. The stop buzzer contact for the program to terminate operations is Mr. Paul Wulff, (858) 592-3296.