EXPERIMENTAL DESCRIPTION – AARSS TRANSMITTER
FORM 442 LICENSE REQUEST (File # 0621-EX-PL-2013)

Exelis Inc., located in Van Nuys CA, is scheduled to test our Air-to-Air Radar Subsystem (AARSS) which is the Ku-band Sense and Avoid radar for the Broad Area Maritime Surveillance (BAMS) air vehicle platform. This is being developed for Northrop Grumman for NAVAIR PMA-262 (US Navy). We are currently developing the AARSS stand-alone unit and the testing of this unit is to take place here at our ITT Exelis facility in the first quarter of 2014.

The Ku band antenna is an active aperture array consisting of three faces in a U shape configuration (i.e. from a top view perspective - three sides of a square in a plan view). Each face has a matrix of elements packaged within a 10 inch square. Each of the array elements have an integral T/R module and radiates 920 Watts of peak pulsed power with an average of only 27.6 Watts. The arrays radiate sequentially with the two side arrays designed to radiate simultaneously. Each array beam of an average 6 degrees can be scanned anywhere within +/- 37 degrees in azimuth or elevation.

The AARSS meets the 7.8 nm detection range requirement, delivering 8.2 nm detection range in 4mm/hr rain over the entire ±110□□Az by ±30□□El field of regard (FOR), while adhering to the platform SWaP constraints. For further details refer to the System Architecture Overview attachment per call sign WF2XQB, File # 0477-EX-ST-2013 or WF9XYL, File #0663-EX-PL-2012. Call sign WF9XYL (permanent license WG2XQT) is the same unit and testing, but taking place at the Loop Canyon location.

We request coordination and your permission to proceed with our testing in January 2014.

Exelis Inc. will honor all conditions that may be necessary to prevent interference with any existing equipment and are willing to schedule the hours of operation to be during the hours of least air traffic in our vicinity.

Exelis Inc. requests continued frequency operation at:
13,250 MHz to 13,400 MHz with an output power of 30 W maximum.

The test location is at our Van Nuys plant site; 7821 Orion Avenue, Van Nuys , Ca.
Lat: 34-12-50.0 N, Long: 118-28-15.0 W, Ground Elevation above mean sea level: 789’

In conclusion, we are looking forward to attain renewal license approval and welcome any questions you might have. Please email or call me directly at (818) 901-2457.

Thank You,

Forrest Pierson
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