

L3HARRIS TECHNOLOGIES, INC.
EXPERIMENTAL STA APPLICATION
FILE NO. 0238-EX-ST-2021

EXHIBIT 1 - DESCRIPTION OF EXPERIMENT

L3Harris Technologies, Inc. ("L3Harris") hereby requests FCC experimental Special Temporary Authority ("STA") for the period of April 26, 2021 to May 6, 2021 to conduct a project for the Department of Defense. The project sponsor requires L3Harris to obtain a STA to conduct the test. The transmission will occur at the Joint Expeditionary Base Little Creek-Fort Story in Virginia Beach, Virginia within 100 meters radius of the following coordinates: 36-55-39 NL; 076-01-00 WL.

The project requires transmitting a 5 MHz signal (5M00W7D) within the frequency ranges 2142.500 MHz to 2147.500 MHz at an Effective Isotropic Radiated Power (EIRP) not to exceeds 2000 W total channel power and 400 W/MHz. Per Section 27.50(d)(2)(ii) of the Commission's rules, 47 C.F.R. § 27.50, the EIRP is less than the maximum EIRP of 1640 W/MHz when transmitting with an emission bandwidth greater than 1 MHz.

The project uses a narrow beam width (30 degree at half power point) directional antenna positioned no greater than 2 meters above ground level and aimed in elevation parallel to the ground. The azimuth orientation is South-Southwest (210 degrees). The location is shielded to the South, West and East by forested terrain and to the North by the Chesapeake Bay. The transmit location is a restricted access area approximately 1 km from the nearest civilian area.

Transmissions will occur intermittently, and the total transmission time will be limited to no more than 1 hour per day on 3 days within the requested period.

L3Harris acknowledges that all experimental operations conducted in the requested frequency bands will be on a non-interference basis. L3Harris believes that no interference issues will arise from the experimental testing. However, to the extent necessary, L3Harris will utilize its best efforts to avoid and minimize any potential interference.

Testing is conducted with strict RF Safety measures. The test range is clearly marked with "Keep Out" zones in areas of high exposure. RF Safety probes continuously monitor exposure to ensure operator and observer areas are below the Uncontrolled Maximum Permissible Exposure threshold of 1.0 mW/cm². The area within 100m of the transmitter is visually monitored for personnel. As stated previously, the transmit location is a restricted access area approximately 1 km from the nearest civilian area.

Because the equipment is technically incapable of providing station identification, L3Harris respectfully requests a waiver of the station identification provisions of Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115.

L3Harris submits that a grant of this request is necessary and in the public interest because it will advance national security efforts by contributing and assisting in the further development of equipment utilized by the Department of Defense.

The stop buzzer contact for this project is Richard Roosa, Sr. Manager Advanced Programs at L3Harris, tel: 321-223-9551. Email – Rich.Roosa@L3Harris.com