

EXHIBIT 2

GOVERNMENT PROJECT DESCRIPTION AND PUBLIC INTEREST STATEMENT

CHEMRING SENSORS AND ELECTRONIC SYSTEMS, INC.

APPLICATION FOR MODIFICATION OF EXPERIMENTAL LICENSE CALL SIGN WG2XMT

FILE NO. 0231-EX-CM-2017

Chemring Sensors and Electronic Systems (“Chemring” or “CSES”) seeks a modification to its existing experimental license (Call Sign WG2XMT, File No. 0327-EX-PL-2013, granted Nov. 26, 2013) to change its testing locations. In particular, Chemring seeks to remove the two testing locations in Charlottesville, Virginia, and replace them with one testing location in Charlotte, North Carolina. (The other testing location in Dulles, Virginia, remains the same.)

Chemring previously filed an application for modification that was dismissed without prejudice due to FAA concerns regarding potential interference (Call Sign WG2XMT, File No. 0034-EX-CM-2017, dismissed without prejudice July 24, 2017). Chemring has coordinated with the FAA regarding its concerns and the FAA has conditionally concurred with Chemring’s application via correspondence dated Sept. 7, 2017 (see Exhibit 3).

The experimental license at issue here is for testing and developing ground penetrating radar equipment (“GPR”), which utilizes the ultra-wideband (“UWB”) bandwidth. The GPR is a critical component of Chemring’s landmine detection system (the “Landmine Detection System”). The GPR is uniquely capable of recognizing, detecting and precisely locating a multitude of buried explosive devices, including anti-personnel and anti-tank mines and improvised explosive devices (“IEDs”). The Landmine Detection System, including the GPR, has been procured by the United States Army for immediate use in overseas combat in the Middle East as a means to ensure the safety of U.S. forces pursuant to Contract Number W909MY-12-D-0007. Accordingly, expeditious grant of Chemring’s modification of its experimental license is in the public interest and a matter of national security.

The existing experimental license request was approved for testing being done in conjunction with an experimental license previously awarded to Chemring (previously known as “NIITEK;” see Exhibit 4) to perform development and production testing of certain radio components that operate with the GPR as part of the Landmine Detection System (File No. 0639-EX-PL-2012, filed December 13, 2012, granted February 15, 2013).

Chemring sought the existing experimental license for the limited purpose of development and production testing of the GPR device at three specific locations in Virginia, United States. The instant application for a modification of the experimental license is intended to remove the two Charlottesville, Virginia testing locations and replace them with one testing location in Charlotte,

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North Carolina. Actual operational use of the device is performed by the U.S. Army outside the United States.

Chemring develops and fields best-in-class vehicle-mounted mine and buried threat detection systems. Currently, our Husky Mounted Detection System (HMDS) is deployed in theater, saving soldiers' and marines' lives. The system has successfully detected countless threats in theater, resulting in transition to full-rate production. Army personnel have described HMDS as a "leap forward in technology in the road clearance mission." Vehicles follow Chemring's Husky mounted detection systems on roads that otherwise would be impassible. Chemring currently is engaged with its government customers to improve and extend the capabilities of its industry leading GPR technology. The company has several development projects underway to extend the existing technology to improve its detection capabilities, increase its interoperability with other systems, and extend its use beyond the current route clearance missions to other critical buried explosive hazards missions within the US Army and US Marine Corps.

Chemring continues to develop next generation GPR technologies. Specifically, Chemring is currently working to advance its base GPR technology to significantly increase detection performance as well as interoperability characteristics with other military systems. Chemring's development of the next generations of successful GPR detection technologies includes extensive testing at government ranges, as well as at Chemring facilities. This testing enables Chemring to make iterative changes to the detailed design required to achieve the final performance levels desired.

Chemring's core mission is to protect our soldiers and marines before their first step. It is critical that Chemring has the ability to continue to operate and test our current and future systems at our facilities to protect our military and provide for humanitarian demining in the years ahead. As explained in the original application for the current experimental license, there are three aspects of Chemring's testing operations to which the current experimental license applies.

First, Chemring operates the GPR during two phases of testing and development at its facilities located in Dulles, Virginia (the "Dulles facility"). During the development and laboratory testing phase, the GPR is operated inside Chemring's sensor development laboratory. Shielding is used around the GPR to ensure that radiation levels outside of the lab are attenuated below the FCC requirements as defined in 47 CFR §15.509. During the system integration testing phase, the GPR is operated in Chemring's system lab to confirm proper integration with other components of the Landmine Detection System. During this phase, the GPR parameters are not typically measured. Thus, the GPR can be operated with enclosures placed around and over the panels for shielding. Chemring also performs system testing in the surrounding parking lot of the Dulles facility. Such testing only involves surface-laid objects, and thus does not require full power operation. Consequently, system testing in the surrounding parking lot involves lower transmitted power, or a cover placed over the antenna, to attenuate the signal within FCC parameters.

Second, Chemring mounts the GPR on vehicles for testing on the property surrounding the Dulles facility. During such testing, the GPR antenna is either in a reduced power mode, or is covered by an attenuation cover, to ensure that all emissions are below the Part 15 parameters.

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During testing, the antenna is intentionally operated about 10 inches above the ground with the center line or focus of the beam directed into the ground. A “background subtraction process” occurs roughly once an hour lasting roughly 10 seconds during which time the GPR antenna is approximately 1.2 meters above the ground, and directed at about a 65 degree angle to the ground.

Third, Chemring seeks a modification of the existing experimental license to perform production testing of the GPR at its Charlotte, North Carolina facility. (This testing, which was previously authorized to be done at one of two Charlottesville, Virginia facilities, is intended to ensure proper operational use.) Due to emission levels exceeding the required limits per FCC Part 15 and NTIA Annex K in the 960-2210 MHz range, the proponent will operate with lower power and/or shielding to reduce risk to nearby FAA operations. Specifically, we will operate the unit inside our buildings. This provides additional attenuation and reduces the emissions that otherwise were over the unlicensed limits in the 960 MHz to 3.1 GHz range back down to the unlicensed limits. For the frequency in the FAA aviation bands (108-137 MHz, 328.6-335.5 MHz, etc), which are already well below the unlicensed limits, this represents a further reduction.