

From: Jonathan Wetherbee

To: Behnam Ghaffari

Date: November 05, 2018

Subject: 0836-EX-CN-2018

Message:

File No. 0836-EX-CN-2018

Ref. 44774

Mr. Ghaffari:

In reply to your inquiry (Ref. 44774), the following is confirmed, pursuant to NTIA manual Section 8.3.27:

“a. Individual authorization is for indoor use only, and is required for each device at a specific site.”

Leidos: Understood. In addition, the Exhibit filed with the application confirms that the operations will occur “…inside [Leidos’] engineering prototype labs.”

“b. Applications for frequency assignment should be applied for as an XT station class with a note indicating the device is to be used as an "Experimental RNSS Test Equipment for the purpose of testing GPS receivers" and describing how the device will be used.”

Leidos: Grant of the requested license with an “XT” Station class is acceptable to Leidos, with the requirement that the operations will be “Experimental RNSS Test Equipment for the purpose of testing GPS receivers". Additional details regarding the Experiment were submitted with the Exhibit on file with the Commission.

“c. Approved applications for frequency assignment will be entered in the GMF.”

Leidos: This is not an action item for Leidos. Leidos assumes this will be done upon approval of the application.

“d. The maximum length of the assignment will be two years, with possible renewal.”

Leidos: Understood.

“e. The area of potential interference to GPS reception (e.g., military or contractor facility) has to be under the control of the user. Areas beyond the range for potential interference are protected by the maximum power calculation described in f. below, and thus no further record notes are required for frequency assignments.”

Leidos: Understood. The area of operation will be “inside [Leidos’] engineering prototype labs” as explained in the Exhibit on file with the Commission.

“f. The equivalent isotropically radiated power (EIRP) must be such that the emissions are no greater than - 140 dBm/24 MHz as received by an isotropic antenna at a distance of 100 feet (30 meters) from the building where the test is being conducted. The calculation for maximum EIRP shall be based on free space propagation with no allowance for additional attenuation (e.g., building attenuation) as shown below.

Applications requesting power greater than the ?????? calculated at ? = 0 meters (i.e. 39.3 pW for L1, 23.8 pW for L2, and 21.9 pW for L5) must provide the distance from the transmit antenna to the nearest exterior wall so that reviewing agencies can determine if the requested power meets the maximum EIRP described above.”

Leidos: Leidos’ detailed calculations are included in the Exhibit on file with the Commission.

“g. GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.”

Leidos: Leidos is agreeable to a Special Condition as follows, similar to other grants for GPS operations:
"() Leidos shall post signs on doors to the test area notifying that, "GPS re-radiator is in use and the GPS information you receive may be in error."

“h. The use is limited to activity for the purpose of testing RNSS equipment/systems.”

Leidos: Understood

“i. A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS re-radiator operations.”

Leidos: As explained in the Exhibit on file with the Commission, the Atop Buzzers will be:

Primary:

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Should you have any additional questions regarding this pending application, please do not hesitate to contact the undersigned.

Best regards,

Jeff Rummel
Attorney for Leidos, Inc.