

Exhibit 1

In connection with this renewal application for Station WL2XIZ, the following is noted:

1. The full legal name of the licensee is actually “BAE Systems Land & Armaments LP” – It is requested that the Commission correct the name of the licensee from “BAE Systems” to “BAE Systems Land & Armaments LP” if possible as part of this renewal. There has been no change in ownership – this is only a correction of the licensee name to ensure accuracy of the Commission’s records.
2. The updated Stop Buzzer is as follows:

Scott McPherson - (586) 795-7487
3. Attached are the licensee’s “Responses to Items Listed at 8.3.28 of the Manual of Regulations and Procedures for Federal Radio Frequency Management”

**Responses to Items Listed at 8.3.28
of the Manual of Regulations and Procedures for Federal Radio Frequency Management**

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

BAE Systems:

Yes, understood

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.

BAE Systems:

Yes, understood – the Station WL2XIZ license reflects language consistent with this item

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

BAE Systems:

Yes, understood – This is not an action item for BAE Systems – BAE Systems assumes this is being addressed the relevant agencies.

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

BAE Systems:

Yes, understood – The Station WL2XIZ license has a 2 year term

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.

BAE Systems:

Yes, understood

f. The 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.

$$P_{Tmax} = P_R + 20 \log_{10} f + 20 \log_{10} (30 + d) - 27.55$$

Where: P_{Tmax} is the maximum permissible EIRP in dBm

P_R is the power received at 30 meters from the building (i.e. -140 dBm/24 MHz)

f is frequency in MHz (i.e. 1575.42 for L1, 1227.60 for L2, 1176.45 for L5)

d is the distance between the radiator and the closest exterior wall of the building in meters.

P_{Tmax} can then be converted to picowatts by using the formula: $P_{Tmax(pW)} = 10^{\left(\frac{P_{Tmax}}{10} + 9\right)}$

Applications requesting power greater than the P_{Tmax} calculated at $d = 0$ 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.

BAE Systems:

Yes, understood – The calculations below were submitted in November 2020 for the original license application. They remain accurate.



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Change the values in the yellow boxes to calculate required readings

Ant Cable Insertion	Repeater Amp	Repeater Ant Gain			
Receive Ant Gain	Loss	Gain	Best Case	Range in Feet	Repeated Signal Power @ Range In dBm
33	-13	32	3	100	-141.09
GPS Carrier Frequency MHz			Total System Gain	Range in Miles	Total Signal Power @ Range in Watts
1575			55	0.02	7.8E-18
Avg Receive Power L1 dBm North America				Range in Meters	Radiated Power dBm
-130				31.17	-75
Free Space loss with Isotropic Antennas				Range in Kilometers	Transmitted Power (W)
-66.09				0.03	15.8E-12
					Effective Radiated Power (W)
					31.6E-12
					Effective Radiated Power (dBW)
					-105

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.

BAE Systems:

Yes, understood

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

BAE Systems:

Yes, 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.

BAE Systems:

The updated Stop Buzzer is as follows:

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