FCC file number: 0478-EX-PL-2008

Confirmation #: EL397592

Submission Date: 24 November, 2008

Date: 17 December, 2008

Re: Request for information

Correspondence reference # 7829

From: Jose Trevino (Jose.Trevino@fcc.gov)

Dear Jose,

Thank you for your efforts to proceed speedily with our application for an experimental license. This note is in response to your request for additional information to address Section 8.3.28 of the NTIA Manual.

- 1. Our request is for an individual authorization on a fixed device that re-radiates GPS signals. The re-radiator will be used strictly indoors at the laboratory facility located in Manassas, Virginia.
- 2. na application is not for frequency assignment
- 3. na application is not for frequency assignment
- 4. na application is not for frequency assignment
- 5. The repeater space is a single level laboratory and office facility under the strict and constant control of SAIC. Over the duration of the license, the repeater is expected to be turned on only during normal working hours though it may be in occasional use during off-hours, for example the early evening hours or occasional weekend use. It is further anticipated that the long term average on-time of the repeater would be in the vicinity of 10-20% of a normal working day.
- 6. The manufacturer of the repeater system is GPS Source, Inc. located in Pueblo, CO. SAIC has purchased one of their standard L1/L2 repeater kits incorporating 50' of premium grade, 50 ohm cable. All calculations supplied by the manufacturer are presented below and include the cable losses along with the repeater power at the specified range of 100'. As required, these calculations are for free space propagation and do not account for any attenuation by the building structure. For the repeater system to be used, Table I provides the ERP at 100' as 6.9×10^{-11} watts which translates to -143 dBm, in compliance with the NTIA requirement.
- 7. All GPS users within the facility and area of potential interference are being notified of the repeater installation. SAIC real estate and the facility landlord have been notified.
- 8. The equipment to be tested will be government furnished military SAASM receiver cards with some preliminary work with commercial GPS receiver cards. The specific details regarding manufacturer and model numbers can be supplied if desired.
- 9. The facility point of contact will be

Brian Hilko Off: 571-921-3073

Res: 703-765-6512

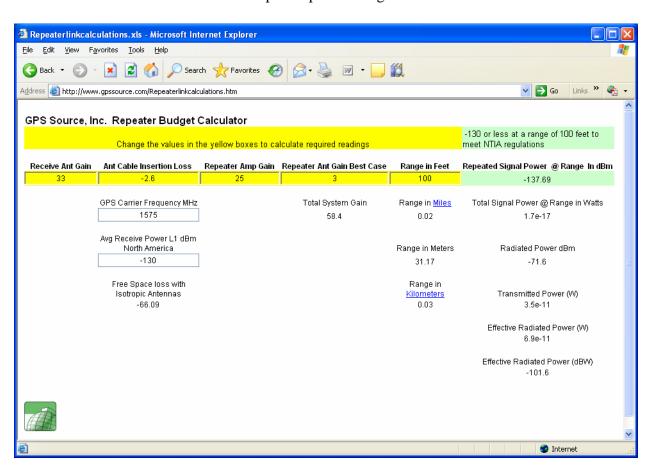
Please let me know if there is any additional information that you require and I will respond as quickly as possible.

Best Regards Brian

Dr Brian Hilko SAIC 10110 Battleview Parkway, Suite 100 Manassas, VA 20109

off: 571-921-3073 cell: 301-326-7259 fax: 703-676-1461 hilkob@saic.com

TABLE I – Repeater power budget calculations.



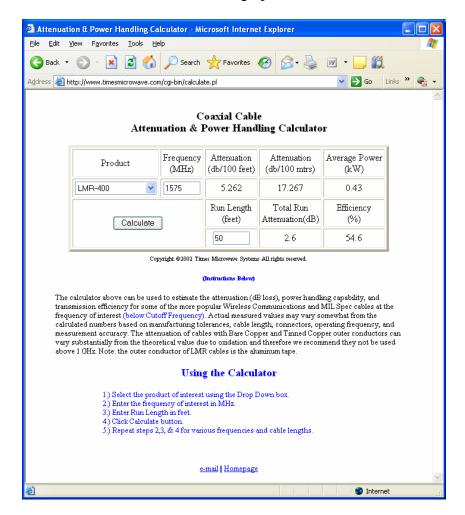


TABLE II – Attenuation through purchased co-axial cable.