

Exhibit – Section 8.3.28 of NTIA Manual

Use of Fixed Devices That Re-Radiate Signals Received From the Global Positioning System

1. Individual authorization is for indoor use only, and is required for each device at a specific site.
 - a *Only a single GPS repeater will be used at the specific indoor site described in the application.*
2. 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.
 - a *The system will be used to test GPS receivers. The GPS Source repeater will be used to provide indoor access to GPS signals providing time and position information for test and verification of Connected Vehicle On Board Units (OBU) during installation in vehicles and interoperability testing between different vendors OBU's.*
3. Approved applications for frequency assignment will be entered in the GMF.
 - a *Expected.*
4. The maximum length of the assignment will be two years, with possible renewal.
 - a *It is understood that the license will require review and renewal after two years.*
5. The area of potential interference to GPS reception (e.g., military or contractor facility) has to be under the control of the user.
 - a *The area of potential interference is contained on University of Michigan Transportation Research Institute controlled property.*
6. The maximum equivalent isotropically radiated power (EIRP) must be such that the calculated 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 calculations showing compliance with this requirement must be provided with the application for frequency assignment and should be based on free space propagation with no allowance for additional attenuation (e.g., building attenuation.)
 - a *See "Exhibit - New Calculation Compliance with NTIA Guidelines.pdf"*
7. GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.
 - a *GPS users within the interference risk area will be informed of the operation of a local GPS re-radiation system.*
8. The use is limited to activity for the purpose of testing RNSS equipment/systems.

- a *It is anticipated that use of the GPS Repeater will be limited to 0700 – 1730 M-Fr. The installation has a very low risk of causing interference to external GPS users. The system will be operated when installing Connected Vehicle equipment in automobiles in order to test them prior to deployment.*
- 9. A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS re-radiation operation of the device under any condition.
 - a *The POC's listed below are Vehicle Installation facility supervisors where the GPS Source repeater will be operated. The phone numbers listed have a high probability of being answered during the hours of operation of the GPS Source repeater (typically 0700 – 1730 M-Fr).*
 - i Randy Motyka – 734- 647-4970
 - ii Rick Byrd – 734-476-7388