

Federal Communications Commission

Via: fcc.gov

Re: Narrative in support of Form 442 Application number: 0495-EX-PL-2015

Turbine Aircraft Services, LLC respectfully submits the attached Form 442 application for a new license for the installation of a GPS Networking GPS re-radiating kit. This transmitter will be utilized solely in support of our efforts to develop and test aircraft avionics that utilize GPS signals. The transmitter will be housed in a fully enclosed, metal hangar. Also attached are the technical specifications provided to us by the manufacturer. If you have any questions or concerns, please feel free to contact Bryson Pogson at any time. He can be reached by phone at (405) 491-8995 or by email at Bryson@tasokc.com. Thank you for your consideration of our request.

With respect to compliance to Section 8.3.28 of the NTIA manual, we submit the following responses:

- a. This application is for indoor use only and will be in a fully enclosed, metal hangar.
- e. The area of potential interference is under and will remain under control of the user.
- f. The EIRP has been calculated to be -140.77 dBm/24 MHz at 100 feet, as provided in the information from the manufacturer of the device submitted in our original application packet.
- g. It will be the policy of Turbine Aircraft Services to inform users in the area of potential interference that GPS information may be impacted and for what periods of time to expect that interference.
- h. The use will be limited to the purpose of testing RNSS equipment/ systems.
- i. Bryson Pogson will be the "Stop Buzzer" point of contact for Turbine Aircraft Services and will be available at all times the device is in operation.



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Change the values in the yellow boxes to calculate required readings

-140 or less at a range of 100 feet to meet NTIA regulations

Receive Ant Gain	Ant Cable Insertion Loss	Repeater Amp Gain	Repeater Ant Gain Best Case	Range In Feet	Repeated Signal Power @ Range In dBm
38	-3	25	3	242	-140.77
GPS Carrier Frequency MHz		Total System Gain		Range in Miles	Total Signal Power @ Range in Watts
1575		63		0.05	8.4E-18
Avg Receive Power L1 dBm North America				Range in Meters	Radiated Power dBm
-130				75.43	-67
Free Space loss with Isotropic Antennas				Range in Kilometers	Transmitted Power (W)
-73.77				0.08	100.0E-12
					Effective Radiated Power (W)
					199.5E-12
					Effective Radiated Power (dBW)
					-97