

Application for Special Temporary Authority
Terrafugia, Inc.
File No. 0901-EX-ST-2021

NARRATIVE EXPLANATION OF OPERATION AND FREQUENCY COORDINATION

The applicant, Terrafugia, Inc., is a technology company based in the Boston, Massachusetts area that has an interest in testing and development of UAS devices. It has obtained communications systems for these UAS, which it wishes to test on a limited basis for proof-of-concept purposes. Ultimately, the plan for deployment will be for industrial inspections. The communications system operates aboard the UAS and will be operated at a maximum altitude of 400 feet above ground level, with a maximum footprint of 10 miles' radius around a centerpoint. The system as currently configured can operate between 1390-1435 megahertz, using a 10 megahertz occupied bandwidth and a G1W emission for telemetry, radio control and video data. This is not necessarily the band to be proposed for ultimate deployment, but only for testing purposes in its current configuration. The proposed testing would occur at six discrete locations: three in Nevada and three in Massachusetts. Testing will occur for very brief periods, from time to time during the next six months, in these six limited geographic areas.

The testing pursuant to this STA will be done using ground and UAS-mounted transmitters using 10M0G1W emissions, with very low duty cycles and at very low power spectral density. The radios transmit at less than 3 watts TPO and ERP in the band 1390-1435 MHz.

The "Stop Buzzer" contact for this test will be Mr. Sean Tierney, the Engineering Manager, Electrical and Software for Terrafugia. His mobile number is 781-404-6201.

The purpose of this STA is limited to preliminary testing of hardware, preparatory to future development of a UAS product.

Should any report of interference be received, all testing will cease immediately, and the devices will not be operated at all unless and until the interference has been resolved to the reasonable satisfaction of the complainant. It is understood that some of the bands in which this preliminary testing will occur is spectrum allocated to the United States government. The applicant has no expectation that any regular operation by the applicant will be possible in any of the subject bands, and no need for such.

Should any question arise concerning this proposed STA, kindly contact the undersigned communications counsel.

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