

**Texzon Technologies, LLC  
Request for Part 5 Experimental  
Special Temporary Authority  
ELS File No. 0174-EX-ST-2017**

**NARRATIVE STATEMENT**

Pursuant to Sections 5.3(d) and (f) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(d), (f), 5.61 (2016), Texzon Technologies, LLC ("Texzon") hereby respectfully requests special temporary authority ("STA") from March 19 to March 25, to operate in the 51 MHz band for the purpose of demonstrating prototype equipment to Federal government and commercial parties. Texzon is developing systems for the excitation of terrestrial electromagnetic surface waves (Zenneck surface waves, not Norton ground waves) with the ultimate intent of more efficient broadcast signaling without the current issues associated with ionosphere skip interference. The equipment to be used is experimental and proprietary and is entirely of a prototype nature.

Testing will be done under the control of the General Radiotelephone Operator License (GROL) held by:

Kenneth Corum  
FRN: 0003674447  
Granted 03-18-2009  
File Number:0003778069  
Serial Number: PG00026528

As well as under the control of Amateur licensee:

Michael Paul Taylor  
FRN: 0024766438  
General Class Amateur License call sign KG5IUC

**A. Purpose of Operation and Need for STA:**

Texzon is a startup technology company focused in the fields of energy storage and distribution. The focus of the company is in the development of new technology that will allow for more efficient and effective power management and delivery in a safe, environmentally-conscious and reliable manner. The experimental authority requested herein will allow the company to demonstrate the functionality of prototype equipment. Importantly, Texzon believes such testing will be non-radiating – which will limit the interference effects to any other party in the spectrum bands under test.

**B. Location of Proposed Operation:**

Texzon proposes to conduct its experimental testing initially at locations in and around Washington, DC. The transmission unit will be fixed when operating and

non-radiating, but the testing will occur at or within a short distance of the coordinates listed below. The approximate reference coordinates (in Datum: NAD83) of each of the fixed locations is:

Approx. 38° 50' 38.6"N, 77° 00' 54.4"W  
Approx. 38° 51' 53.0"N, 77° 01' 01.5"W  
Approx. 38° 48' 46.0"N, 76° 53' 27.0"W  
Approx. 38° 48' 07.8"N, 77° 03' 49.3"W  
Approx. 38° 48' 28.3"N, 77° 06' 56.8"W  
Approx. 39° 01' 42.4"N, 77° 16' 44.9"W

**C. Technical Specifications:**

**1. Frequencies Desired**

Texzon will be conducting the demonstrations at 51 MHz. To conduct a series of measurements over a frequency range, Texzon requests authorization to use spectrum from 50 to 54 MHz for the 51 MHz demonstration, with 100 Hertz of bandwidth.

**2. Effective Radiated Power**

Texzon anticipates that the demonstrations will be non-radiating. To conduct the demonstrations, the RF power necessary to maintain the voltage to produce local fields required to launch a high velocity propagating surface wave will be utilized. The testing will not exceed 4 kW of RF input power to the surface wave launching probe at 51 MHz. The intent is to produce a surface wave without producing any Norton ground wave radiation.

**3. Modulation and Emissions**

Texzon proposes to utilize a continuous wave signal with 100 Hertz of bandwidth. The emission designator would be H100N0N.

**4. Antenna Information**

While the testing should be non-radiating, the surface wave launching probe will be between 5 and 12 feet above ground level for the 51 MHz demonstrations. No probes will be mounted in a fashion that will require approval under FAA and FCC rules and regulations.

**5. Equipment To Be Used**

Texzon expects to conduct its demonstration with a single test probe at the above referenced fixed locations. This probe and any receiving devices are prototype equipment developed by Texzon. Texzon will limit the power, area of operation, and transmitting times to the minimum

necessary to gather the needed scientific measurements of this new technology.

**D. Protection Against Causing Interference:**

Texzon has requested authority to operate in the 51 MHz bands. The 51 MHz band is a primary Amateur Radio Service band. Texzon understands that it must accept any interference from any users of this band and that all operations by Texzon will be on a secondary basis. Texzon has established a point of contact identified below with “kill switch” authority should any interference occur to primary licensed services. Should interference occur, Texzon will take immediate steps to resolve the interference, including, if necessary, arranging for the discontinuance of operation.

**E. Restrictions on Operation:**

Texzon is not seeking authority to perform a market study under the requested STA. Moreover, no fees will be charged to entities using the equipment during this test. Entities will be advised in accordance with Section 2.803 of the Commission’s rules, 47 C.F.R. §2.803, that any unapproved devices which have not been authorized as required by the FCC are not being offered for sale or lease, or sold or leased, until authorization is obtained.

**F. Public Interest:**

Texzon submits that issuance of an STA as requested is in the public interest, convenience, and necessity. Grant of an STA will help Texzon to develop and test innovative equipment that will allow for more effective and efficient power management and distribution.

**G. Contact Information:**

Technical Contact and “Stop Buzzer/Kill Switch:”

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