

Douglas Young

From: Douglas Young
Sent: Friday, November 17, 2017 10:30 AM
To: John Kennedy; David Duarte
Cc: OET-SCB; ELB-Coordination-Info
Subject: STA Coordination, Georgia Institute of Technology, File #1439-EX-ST-2017
Attachments: 1439-EX-ST-2017.RTF; 199087.PDF

Tracking:	Recipient	Read
	John Kennedy	
	David Duarte	
	OET-SCB	
	ELB-Coordination-Info	Read: 11/17/2017 10:30 AM

Attached is a coordination for the subject experimental STA. The requested start date is **12/05/2017**. This request is to perform channel sounding measurements between **12/05/2017** and **06/05/2018**.

Please CC ELB-Coordination-Info@fcc.gov with all responses.

Doug

FCC FREQUENCY COORDINATION NOTICE

Experimental Licensing Branch Office of Engineering and Technology

The following application is attached for your review:

Applicant: Georgia Institute of Technology

File Number: 1439-EX-ST-2017

Start Date: 12/05/2017

End Date: 6/05/2018

Why STA Is Necessary:

The applicant seeks a STA to operate test transmitters to conduct channel sounding measurements in two Amateur Bands. This experiment will gather radio propagation data to address future Position Navigation and Timing (PNT) challenges. Software defined radio (SDR) transmitters (Great Scott Gadgets HackRF One) will be used to generate test waveforms. These waveforms will utilize BPSK coding and will have occupied bandwidths between 100 Hz and 400 kHz. Data recorded by receivers will be analyzed to inform on interference, multipath, and other propagation impairments.

Purpose of Operation:

Experimental program to perform channel sounding measurements over Amateur Bands. Each experiment will be only hours in duration, and multiple experiments will take place over the specified months of operation. Continuous operation over this time period is not expected.

Contact: Bradford Baker

Phone: 404-407-8533

Email: brad.baker@gtri.gatech.edu

Nature of Service: EXPERIMENTAL

Class of Station: XT MO

Call Sign:

Station Location

MOBILE: Elliot Airfield, Dawsonville, GA, within 1 km, centered around NL 34-27-32; WL 84-10-52

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
902-928 MHz	MO	26M0G1D	16W (ERP)	0.00010000

Directional Antenna Information

Width of Beam at Half Power point: 90 degrees

Orientation in Horizontal Plane: Various azimuth pointing angles

Orientation in Vertical Plane: 10 degrees up from horizon