PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION

455 12TH STREET, S.W.

WASHINGTON, D.C. 20554

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## Report No. 494 EXPERIMENTAL ACTIONS

The Commission, by its Office of Engineering and Technology, Experimental Licensing Branch, granted the following experimental applications during the period from 7/1/17 to 7/31/17:

* **ANDERSON, DAVID W. WI2XZB 0346-EX-CN-2017**

New experimental to operate in 465-480 kHz for antenna and transmitter design and testing.

Fixed: Tryon (Polk), NC

* **APPLE INC. WI2XZP 0385-EX-CN-2017**

New experimental to operate in 27.5-28.35 GHz and 38.6-40 GHz to assess cellular link performance in direct path and multipath environments between base station transmitters and receivers using the 28 and 39 GHz bands.

Fixed: Milpitas and Cupertino (Santa Clara), CA

* **ARTIS, LLC WI2XXK 0244-EX-CN-2017**

New experimental to operate in 3300-3400 MHz for development of self-protection systems that disable rocket-propelled grenades (RPGs) and other projectiles that may be used to attack U.S. Army vehicles.

Mobile: Herndon, VA

* **AT&T LABS WJ2XAK 0275-EX-CN-2017**

New experimental to operate in 27.5-28.35 GHz to provide information for optimizing system parameters being discussed in 5G standard activities and provide data on coverage, capacity, latency, and other key performance indices.

Fixed: Waco (McClellen), TX; Kalamazoo (Kalamazoo), MI; South Bend (Saint Joseph), IN

* **BAE SYSTEMS WI2XYS 0477-EX-CN-2017**

New experimental to operate on 5.275 and 7.775 GHz for testing Mobile QR 2000 Quad Ridge antenna.

Mobile: Wallops Island, VA; San Diego, CA; Crestview, FL; Point Mugu, CA

* **BOEING COMPANY, THE WI2XSO 0032-EX-CN-2017**

New experimental to operate on 4300.00 MHz to verify that electromagnetic emissions from the new/disturbed systems do not adversely affect the operation of the aircraft systems.

Mobile: 747 Test Ramp San Antonio,TX

* **BOEING COMPANY, THE WI2XWH 0302-EX-CN-2017**

New experimental to operate To test strains and positions of rotor blades.

Mobile Under 20,000ft AGL, Ridley Park, PA

* **BOEING COMPANY, THE WI2XZN 0504-EX-CN-2017**

New experimental to operate in 13.40 - 13.65 GHz for testing satellite.

Fixed: El Segundo (Los Angeles), CA

* **CALIFORNIA POLYTECHNIC STATE UNIVERSITY WI2XPH**

**0042-EX-CN-2016**

New experimental to operate on 437.8 MHz for the Irvine 01 cubesat to take pictures of the moon and planets and send them to the ground station where they will be used for educational purposes.

Mobile: Nongeostationary Space Orbit

* **CCO FIBERLINK, LLC WI2XZY 0352-EX-CN-2017**

New experimental to operate in 27.50 - 28.35 GHz to test and evaluate millimeter wave.

Fixed: Throughout the US

* **CELLTEX NETWORKS, LLC WI2XYI 0375-EX-CN-2017**

New experimental to operate in 3550.00 - 3570.00 MHz to test LTE equipment.

Fixed: State of TX

* **DRS SUSTAINMENT SYSTEMS, INC. WI2XYP 0328-EX-CN-2017**

New experiment to operate in 3500-3650 MHz for development of equipment.

Fixed & Mobile: Yuma (Yuma), AZ

* **FENIX GROUP, INC. WI2XYT 0476-EX-CN-2017**

New experimental to operate in 700.00 - 900.00 MHz to demonstrate closed network 4G/LTE networks for military use.

Fixed & Mobile: Throughout the US

* **FIRST STEP INTERNET, L.L.C. WI2XYD 0403-EX-CN-2017**

New experimental to operate in in 3590.00 - 3610.00 MHz for testing LTE.

Fixed: Lenore (Clearwater), ID

* **GENERAL DYNAMICS LAND SYSTEMS WI2XZV 0359-EX-CN-2017**

New experimental on 3575 MHz for development of an Active Protection System (APS) integration into a Stryker Infantry Carrier Vehicle.

Fixed: Edgefield (Edgefield), SC

* **INHAND ELECTRONICS, INC WI2XYX 0486-EX-CN-2017**

New experimental to operate on 1575.42 MHz for testing radionavigation satellite service (RNSS) equipment and systems.

Fixed: Melbourne (Brevard), FL

* **INSITU WI2XYE 0414-EX-CN-2017**

New experimental to operate in 24.45 - 24.65 GHz to test radar system in various settings in 24 GHz band.

Mobile: Hood River, Boardman and Astoria, OR

* **INSITU WI2XYL 0456-EX-CN-2017**

New experimental to operate in 4400.00 - 4800.00 MHz to support UAS command and control.

Fixed: Bingen, WA; Boardman, OR;

Wasco Butte, OR; Jackass Spring, OR

* **ISLAND RADAR COMPANY, LLC WI2XZT 0499-EX-CN-2017**

New experimental to operate in 6000.00 - 8500.00 MHz for train detection systems.

Fixed: Shawnee (Johnson), KS

* **KONGSBERG UNDERWATER TECHNOLOGY, INC. WI2XZO 0501-EX-CN-2017**

New experimental to operate in 5852.00 - 5872.00 MHz to test and demonstrate maritime broadband radio.

Mobile: Coastal Waters Offshore Panama City, Florida

* **LOCKHEED MARTIN CORPORATION WI2XSG 0046-EX-CN-2017**

New experimental to operate in 14-15 GHz to conduct and airborne research program.

Fixed & Mobile: Aztec (Yuma), AZ

* **LOCKHEED MARTIN CORPORATION WI2XZR 0510-EX-CN-2017**

New experimental to operate on 73.375 and 83.375 GHz to perform RF propagation studies.

Fixed: Santa Cruz (Santa Clara), CA

* **METROM RAIL, LLC WI2XYU 0479-EX-CN-2017**

New experimental to operate in 911.75 - 919.75 MHz to develop decentralized train protection system.

Mobile: Testing around Metrom Rail, Crystal Lake, IL

* **MIMOSA NETWORKS, INC. WI2XYK 0437-EX-CN-2017**

New experimental to operate in 10.00 - 10.45 GHz to test equipment

Fixed: Santa Clara, San Jose and Los Gatos (Santa Clara), CA

* **O3B LIMITED WI2XXD 0299-EX-CN-2017**

New experimental to operate on 28 GHz for antenna testing

Mobile: Throughout the United States

* **O3B LIMITED WI2XXZ 0374-EX-CN-2017**

New experimental to operate on 28 GHz for testing equipment

Mobile: United States

* **OKLAHOMA STATE UNIVERSITY - UNIVERSITY MULTISPECTRAL LABORATORIES WI2XVW 0088-EX-CN-2017**

New experimental to operate in 404.75 - 419.25 MHz for equipment testing.

Fixed & Mobile: Newkirk (Kay), OK

* **PARALLEL WIRELESS, INC. WI2XWU 0219-EX-CN-2017**

New experimental to operate in 800 MHz, 900 MHz and 2 GHz bands equipment testing

Fixed: Nashua (Hillsboro), NH

* **QUINTECCENT INC WI2XVL 0175-EX-CN-2017**

New experimental to operate in 1.00 - 500.00 MHz to test various antenna systems.

Mobile: Radium Springs, NM

* **RAYTHEON MISSILE SYSTEMS WI2XYN 0461-EX-CN-2017**

New experimental to operate in 434.00 - 436.00 MHz to test telemetry.

Fixed & Mobile: Tucson (Pima), AZ; Sierra Blanca (Hudspeth), TX

* **RAYTHEON MISSILE SYSTEMS WI2XTE 0128-EX-CN-2017**

New experimental to operate on 351.00 and 362.25 MHz for testing the operation of UAS system.

Fixed & Mobile: Florence (Pinal), AZ

* **RAYTHEON SAS WI2XZK 0490-EX-CN-2017**

New experimental to operate in 3.00 - 27.50 kHz for conducting radio communication testing in HF.

Fixed: Oklahoma City (Oklahoma), OK

* **RAYTHEON SAS WI2XZL 0493-EX-CN-2017**

New experimental to operate on various frequencies between 31.50 and 224.00 MHz for radio communication testing.

Fixed: Oklahoma City (Oklahoma), OK

* **RAYTHEON SAS WI2XZU 0533-EX-CN-2017**

New experimental to operate in 4400.00 - 4940.00 MHz to test equipment.

Fixed: Oklahoma City (Oklahoma), OK

* **ROCKWELL COLLINS, INC. WI2XYQ 0368-EX-CN-2017**

New experimental to operate in 13.75 - 14.50 GHz to test and demonstrate proof of concept receive Ku-band phased array antenna.

Fixed: Cedar Rapids (Linn), IA

* **SPIDERCLOUD WIRELESS, INC WJ2XAB 0391-EX-CN-2017**

New experimental to operate in 3650-3700 MHz to test LTE operation in CBRS band indoors.

Fixed: Milpitas (Santa Clara), CA

* **SW NETWORKS LLC WI2XXA 0125-EX-CN-2017**

New experimental to operate in 37-38.6 GHz and on 39.3 GHz for investigating and verifying the performance of new equipment for operation in the 37 GHz and the 39 GHz frequency bands.

Fixed: Hazel Crest, IL; Highland, IN;

* **T-MOBILE LICENSE LLC WI2XYW 0444-EX-CN-2017**

New experimental to operate in 27.50 - 40.00 GHz for testing 5G technology.

Fixed & Mobile: San Francisco (San Francisco), CA

* **TELEPHONICS WI2XYG 0436-EX-CN-2017**

New experimental to operate in 22.4675 - 22.6325 GHz for testing radar.

Fixed: El Paso (Dona Ana), NM; Huntington and Farmingdale (Suffolk), NY;

* **TEXTRON AVIATION, INC. WI2XWE 0307-EX-CN-2017**

New experimental to operate on spot frequencies between 121.14167000 and 131.30833 MHz for testing VHF Radio Communication system.

Mobile: Dwight D. Eisenhower Regional Airport (ICT), Sedgwick County, KS

* **UNIVERSITY OF ALASKA, POKER FLAT RESEARCH RANGE**

**WI2XZI 0293-EX-CN-2017**

New experimental to operate on 32.55 MHz to conduct research on atmospheric dynamics using scatter from meteor trails in the altitude range of 70-100 km.

Fixed: Fairbanks, AK

* **UNIVERSITY OF OKLAHOMA WI2XTM 0038-EX-CN-2017**

New experimental to operate on 5650 MHz, 5660 MHz and 5670 MHz for testing radar.

Fixed & Mobile: Norman (Cleveland), OK; Washington (Mcclain), OK; Noble (Noble), OK

* **VERTEX COMMUNICATIONS CORPORATION WI2XTZ 0089-EX-CN-2017**

New experimental to operate in 3400.00 - 21200.00 MHz for testing antennas.

Mobile: Kilgore (Gregg), TX