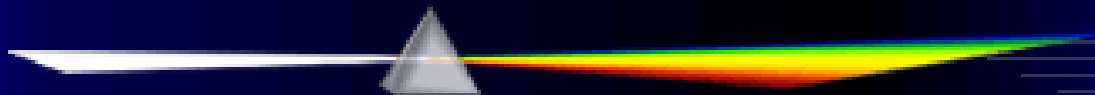


Office of Engineering and Technology

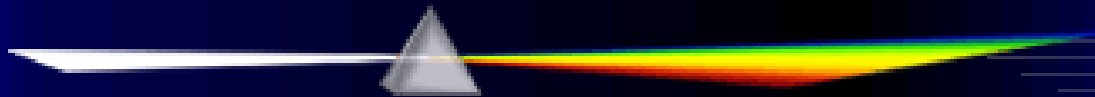
Staff Presentation
FCC Open Commission Meeting
January 13, 2021



OET's Mission

Manage the spectrum and provide technical leadership.

Create new opportunities for innovation and economic growth.



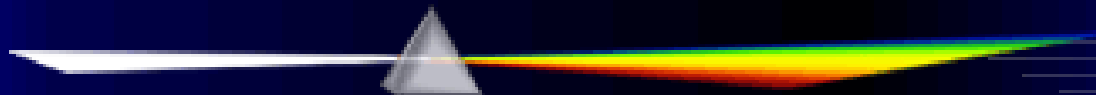
Advanced Communications Services for All

From spectrum allocation to equipment certification, OET is there from start to finish

- Manages US Table of Frequency Allocations – the ‘foundation’ of spectrum management
- Provides engineering support on Commission service rulemakings
- Ensures new devices and equipment comply with technical rules

Making Spectrum Available – 5G FAST!

- Critical Engineering Support for Key Spectrum Initiatives:
 - 600 MHz
 - L-Band
 - Spectrum Frontiers
 - C-Band
 - 3.5 GHz

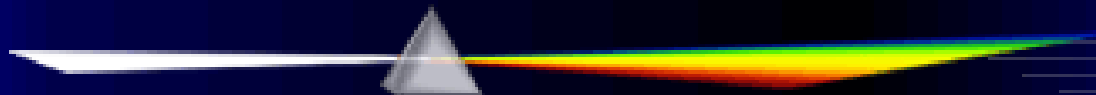


Advanced Communications Services for All

Unlicensed Spectrum Leadership

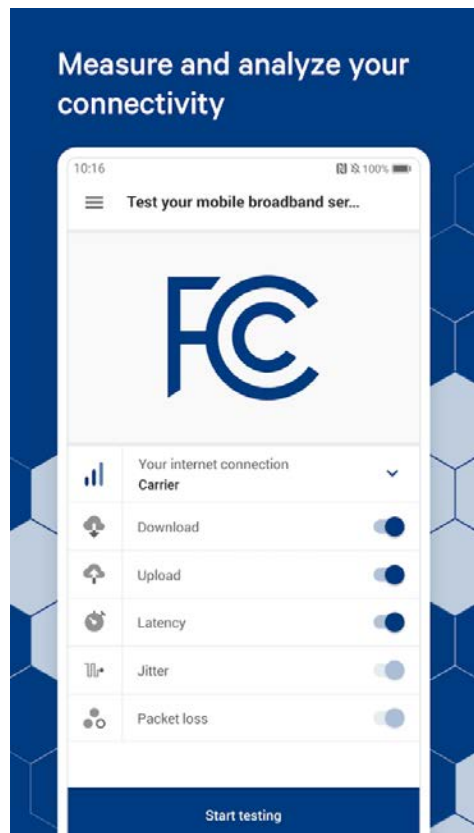


- 6 GHz R&O
 - 1,200 megahertz of spectrum
 - Will support latest generation of services (i.e., Wi-Fi 6)
- 5.9 GHz R&O
 - Retained spectrum for core automotive safety applications in the band while expanding unlicensed use
- 600 MHz White Spaces
 - Expanded opportunities for rural and hard-to-serve areas, including for rural schools and communities, IoT, and innovative agricultural applications
- Spectrum Horizons
 - Granted new access to terahertz spectrum above 95 GHz



Advanced Communications Services for All

Engineering and technical analysis to support FCC priorities



- Developed new speed test app for Measuring Broadband America (MBA) program
 - Used to support Commission work and independent researchers
- OET data and analysis used to support—
 - 5G Fund
 - Rural Digital Opportunity Fund (RDOF)
 - Broadband coverage and mapping

Promoting Innovation

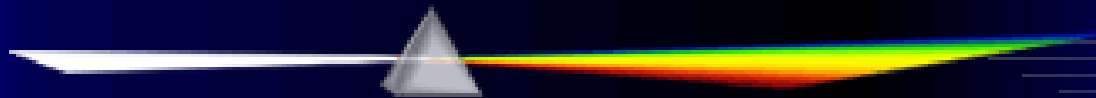
Evolution of the Experimental Licensing Program

- Program Experimental Licenses accepted
- Innovation Zones
- Experiments above 95 GHz
- Commercial space launches/UAV technologies



Modernization of the Equipment Authorization Program

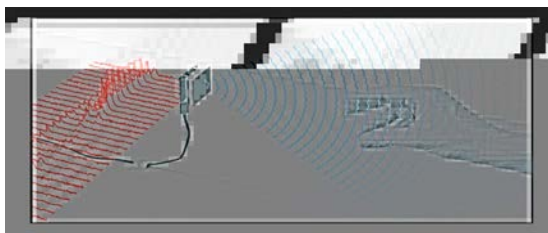
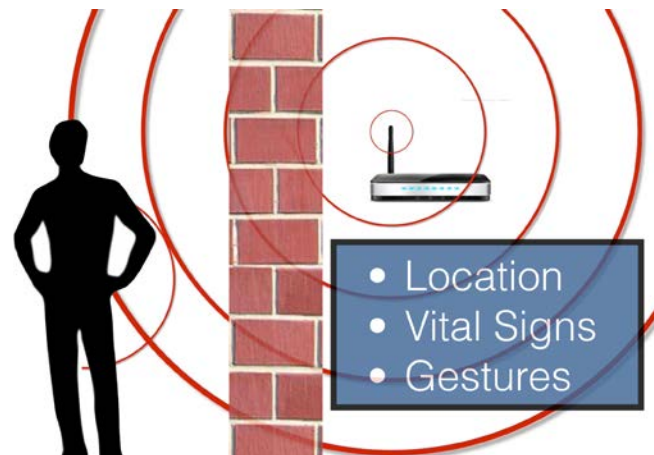
- Updated our marketing and importation rules
- Developed new self-certification and e-labeling provisions
- Competitive market-based Certification process
 - TCBs submit more than 25,000 Certification applications yearly



Promoting Innovation

Processing waiver requests to provide flexibility for innovators

- Issued multiple Part 15 waivers for innovative unlicensed devices, including those for:
 - Medical devices
 - Transportation and security equipment
 - Agriculture and industrial applications
 - Productivity and lifestyle products



“Now, more than ever, we need to support and enable innovation in health care.”

- Chairman Pai, April 30, 2020

Promoting Innovation

Constantly reviewing and updating our rules to accommodate new technologies

- Vehicular Radar R&O (76-81 GHz)
 - Using millimeter wave spectrum to sense surroundings and protect public safety
- Remote Wireless Charging
 - Authorized first systems to provide wireless power transfer (up to one meter)



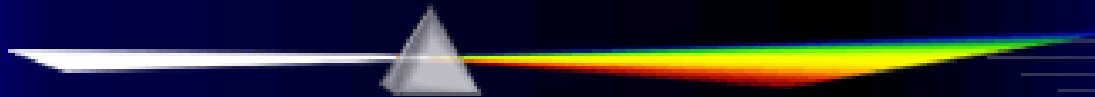
- Preserve the integrity and improve the availability of wireless microphone services
- Major RF Order issued in December 2019
 - Reaffirmed existing standards, streamlined evaluation procedures, sought comment on expanding the range of frequencies subject to RF exposure limits
 - Streamlined regulations promote innovation while protecting the public

Protecting Consumers and Supporting Public Safety

- Meeting the challenges of COVID-19
 - Waiver to allow importation and operation of new medical devices to fight the COVID-19 pandemic
 - Special Temporary Authority (STA) for contact-tracing system used by the NFL in 2020-2021 season
 - Wireless internet service providers permitted higher power levels during the pandemic – improved broadband service to consumers



- Allowing new security screening portals to operate under the unlicensed rules through waiver grants
- Conducting lab testing and audits of RF devices and related technologies
- Aiding Commission response to hurricanes and other natural disasters



Modernizing Operations and Programs

- Investing in Staff to Ensure Continued OET Success
 - Launched Honors Engineering Program – New Talent for Cutting-Edge Engineering



- Investing in Tools and Resources to Tackle Increasingly Complex Radiofrequency Engineering Challenges

