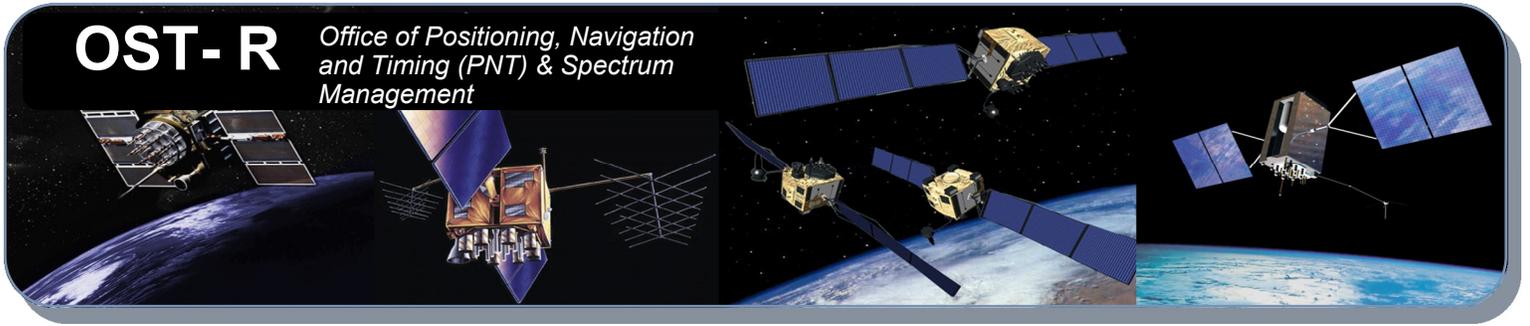
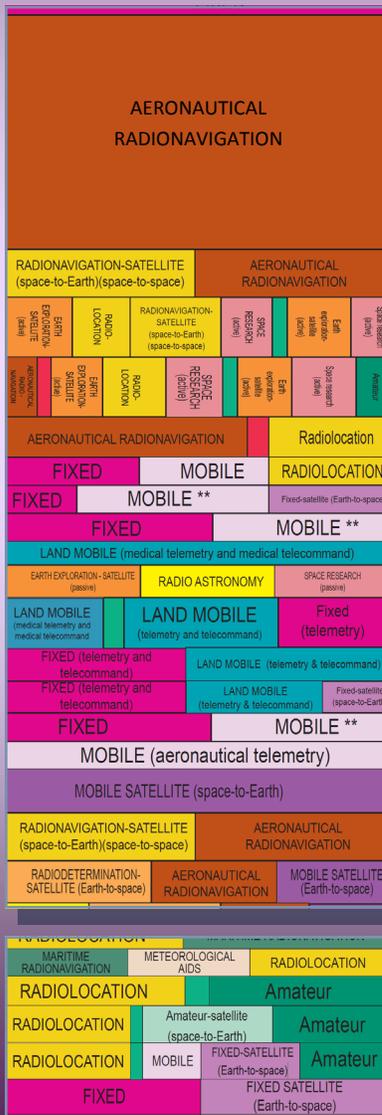
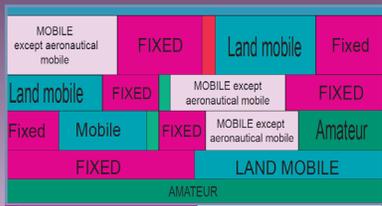


OST-R

Office of Positioning, Navigation and Timing (PNT) & Spectrum Management



“Advancing PNT and Spectrum Policy and Research”



Spectrum Management Program Overview

Spectrum Policy, Planning, and Analysis

- Coordinates spectrum policy among DOT modal administrations.
- Interacts with other Federal Agencies, including the National Telecommunications and Information Administration (NTIA) and Federal Communications Commission (FCC) to support national spectrum policy.
- Day-to-day responsibility for spectrum management is handled by OST-R for cross-modal transportation issues such as PNT, as well as surface transportation and by the FAA for aviation and space transportation issues.

Presidential Memorandum on Developing a Sustainable Spectrum Strategy for America’s Future - October 2018

“Section 1. Policy. It is the policy of the United States to use radiofrequency spectrum (spectrum) as efficiently and effectively as possible to help meet our economic, national security, science, safety, and other Federal mission goals now and in the future. To best achieve this policy, the Nation requires a balanced, forward-looking, flexible, and sustainable approach to spectrum management.”

Radiofrequency spectrum is a limited resource, therefore, in support of the President’s memorandum to develop a sustainable spectrum strategy, DOT is working to ensure transportation’s use of radiofrequency spectrum is efficient and effective, utilizing existing commercial systems whenever feasible.

DOT continues to look for additional opportunities to share spectrum, working with both Federal spectrum managers and non-Federal standards organizations to ensure telecommunications technologies incorporate many of the unique aspects that transportation needs to increase safety, mobility and efficiency. Realizing the potential for connected vehicle technology across the many transportation modes within the USDOT will require innovation and support from Federal and non-Federal spectrum users.

For more information, please visit us at <https://www.transportation.gov/pnt>

FCC PUBLIC NOTICE
 Federal Communications Commission
 445 1st St., N.W.
 Washington, D.C. 20554

DA 18-111
 Released: October 25, 2018
 OFFICE OF ENGINEERING AND TECHNOLOGY REQUEST COMMENT ON
 PHASE 1 TESTING OF PROTOTYPE U-NDA REVISED
 ET Docket No. 18-49

Comment Date: November 28, 2018
 Reply Date: December 13, 2018

The Commission's Office of Engineering and Technology (OET) is requesting comment on the report for Phase 1 of a project to evaluate potential sharing solutions between the proposed Unlicensed National Information Infrastructure (U-NII) Service and Dedicated Short Range Communications (DSRC) operations in the 5.90-5.925 GHz (5.9 GHz) frequency band. The attached report provides a detailed summary of the testing methodology, measurements, and observations.

On June 1, 2016, the Office of Engineering and Technology (OET) issued a Public

U.S. Department of Transportation
 Automated Vehicles 3.0

PREPARING FOR THE FUTURE OF TRANSPORTATION

Technology Areas

Software	VOLUNTARY TECHNICAL STANDARDS FOR AUTOMATION	Definitions and Architecture
System Engineering		Data
Communications		Design
Position, Navigation and Timing (PNT)		Maintenance and Inspection
Mapping		Functional / Performance
Sensing		Protocol (Communications)



Preparing for the Future of Transportation

OST-R's Office of PNT and Spectrum Management works closely with the Intelligent Transportation Systems Joint Program Office (ITSJPO), Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA) and others within DOT to ensure access to spectrum designated for surface transportation for ongoing deployments supporting safety critical communications such as Vehicle-to-Vehicle and Vehicle-to-Infrastructure applications.

OST-R's Office of PNT and Spectrum Management also worked closely with the Federal Railroad Administration and NTIA to encourage the FCC to make sufficient spectrum available to support the implementation of Congressionally mandated Positive Train Control to improve safety and efficiency on the nations freight and commuter rail lines.

U.S. DOT is continuing its work to preserve the ability for transportation safety applications to function in the 5.9 GHz spectrum while exploring methods for sharing the spectrum with other users in a manner that maintains priority use for vehicle safety communications.

A three-phase test plan was collaboratively developed with the Federal Communications Commission (FCC) and the U.S. Department of Commerce to examine sharing mitigation techniques. The FCC has completed the first phase. Phases 2 and 3 will explore potential sharing solutions under more realistic deployment scenarios.

SPECTRUM
 Example Bands of Interest to DOT

26.1 MHz -- 26.175 MHz
 MARITIME MOBILE
 Communications to ships in coastal zones
SHARED FED/NON-FED

216 MHz -- 222 MHz
 FIXED | MOBILE
 Railroad Use, Positive Train Control (PTC)
SHARED FED/NON-FED

960 MHz -- 1164 MHz
 AERONAUTICAL RADIONAVIGATION (DME)
 (ADS-B UAT (ATCRBS, Mode S, ADS-B, TCAS & MLAT)
978 MHz *1030 MHz *1090 MHz
SHARED FED/NON-FED

1559 MHz -- 1610 MHz
 Radio Navigation Satellite Service (RNSS)
 (GPS L1 @ 1575.42 MHz)
SHARED FED/NON-FED

5.85 GHz -- 5.925 GHz
 5.9 GHz Supporting Transportation Safety
SHARED FED/NON-FED

17.8 GHz -- 18.3 GHz
 Federal Maritime Use (Data Link between SLSDC and Canada), Railroad fixed microwave links
SHARED FED/NON-FED

Consult DOT's Spectrum Chart: US Radio Frequency Bands Supporting Surface & Aviation Transportation for Details.

