





The Honorable John Thune
Chairman
Committee on Commerce, Science,
& Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Thank you for your September 9, 2015, letter raising the important issues of maximizing our country's spectrum resources, promoting private sector deployment, and improving vehicle safety. As you stated in your letter, the Department of Transportation (DOT), the Department of Commerce (Department), and the Federal Communications Commission (FCC) each has core, yet interdependent, roles to play in advancing these three goals.

In your letter, you encouraged the FCC, in close coordination with the DOT and the Department, to take the lead in testing and modeling to ensure appropriate interference-avoidance and spectrum rights allocation in the 5850-5925 MHz (5.9 GHz) band. You also called upon the DOT to lead, in close coordination with the FCC and the Department, the development of 5.9 GHz Dedicated Short Range Communications (DSRC) technology, vehicle safety testing, and DSRC capabilities testing. Furthermore, you noted that the Middle Class Tax Relief and Job Creation Act of 2012 directed the Department's National Telecommunications and Information Administration (NTIA) to study the possibility of allowing unlicensed operations in the 5.9 GHz band.

Each of our agencies shares your commitment to finding the best method to develop, successfully test, and deploy advanced automotive safety systems while working to meet existing and future spectrum demands. Just as we have done in other instances, we are dedicated to moving forward with a collaborative approach that leverages each agency's core competencies.

We describe below our efforts to date and detail a joint pathway forward that incorporates the principles and goals articulated in your letter.

As you know, in August the DOT, consistent with its directive to test DSRC capabilities, released a DSRC-Unlicensed Device Test Plan. The DOT test plan describes tests to characterize the existing radio frequency signal environment and identify the impacts to DSRC operations if unlicensed devices operate in the 5.9 GHz band. The DOT test plan's stated

overarching goal is to assure "safe, reliable, and on demand access to 5850-5925 MHz spectrum for DSRC operation."

The DOT test plan provides a valuable first step. As contemplated by your letter, the FCC, in accordance with its spectrum management expertise, and the DOT are currently devising, in close consultation with the NTIA, a complementary FCC-led test plan. The tests conducted to date combined with the results of this FCC test plan will provide reliable, real-world data on the performance of unlicensed devices that are designed to avoid interfering with DSRC operation in the 5.9 GHz band.

The FCC Test Plan: The FCC will begin by refreshing the record of its pending 5.9 GHz rulemaking proceeding to provide interested stakeholders the opportunity to provide further comment on sharing in the band as well as the opportunity to comment on the proposed FCC test plan. The FCC will also solicit the submittal of prototype unlicensed, interference-avoiding devices for testing.

The FCC, the DOT, and the NTIA will continue to collaborate, as well as engage with other stakeholders, and may make adjustments to the plan as it evolves. However, as currently envisioned, the test plan proposes collaborative testing by the DOT, the NTIA, and the FCC in three phases:

- *Phase I*: The first phase will involve testing at the FCC Laboratory in Columbia, Maryland, to determine the technical characteristics of prototype unlicensed devices and how they are designed to avoid causing harmful interference to DSRC. As part of the Phase I tests, the agencies will assess such parameters as the threshold at which a device detects DSRC signals on a channel and the amount of time required for a device to vacate the channel so as to avoid interference.
- *Phase II*: The second phase will be based largely on Section 6 of the DOT test plan and will involve basic field tests with a few vehicles at a DOT facility. The Phase II tests will determine whether the techniques to avoid interference that were evaluated in Phase I's lab tests are effective in the field.
- *Phase III*: The third phase will involve tests with many more vehicles, more test devices, and real-world scenarios at a suitable facility. Phase III tests will consider many of the elements introduced in Sections 4, 5, and 9 of the DOT test plan.

The three phases of the test plan are interdependent. It is, therefore, imperative – to ensure the future automotive safety and efficiency of the traveling public – that all three phases of the FCC test plan be completed before reaching any conclusions as to whether unlicensed devices can safely operate in the 5.9 GHz band. Engineers from each agency will carefully

The Honorable John Thune Page 3

examine the options and mechanisms for sharing in the 5.9 GHz band and closely scrutinize the myriad interference prevention approaches.

As you recommend in your letter, we will continue to engage a variety of stakeholders, including the auto industry, the unlicensed device interests, and the satellite interests. Each of our agencies has been meeting individually with a broad range of stakeholders to discuss this initiative, and together we are planning a joint stakeholder-interagency meeting to facilitate a more robust dialogue as we proceed in our collaborative effort.

Thank you very much for your interest in this matter, and we look forward to your continued partnership and support.

Sincerely,

Penny Pritzker

Secretary

Department of Commerce

Anthony Foxx

Secretary

Department of Transportation

Tom Wheeler Chairman

Federal Communications Commission