Response to Written Questions Submitted by Chairman John Thune to Brendan Carr

Question. Millions of rural Americans lack access to broadband, and bridging the digital divide is a priority for me and the Committee. As traditional fiber, cable, and 4G broadband is deployed throughout the country, policymakers must nevertheless be creative and open-minded when exploring all options to achieving universal service. What role do you see for unlicensed spectrum (Wi-Fi, TV White Spaces, millimeter wave, etc.) in connecting unserved rural households with broadband internet access?

Response: I agree that policymakers must be creative and open-minded when it comes to achieving universal service. And I believe that unlicensed spectrum should continue to play an important role in connecting unserved rural households with broadband internet access. If confirmed, I would work to ensure that the FCC takes an all-of-the-above approach to spectrum, including by opening up and enabling the use of unlicensed spectrum.

Response to Written Questions Submitted by Honorable Ted Cruz to Brendan Carr

Federal Spectrum

FCC Commissioner Michael O'Rielly stated in a 2015 blog post that, "By some accounts, the Federal government currently occupies- either exclusively or on a primary basis- between 60 and 70 percent of all spectrum in the commercially most valuable range between 225 megahertz and 3.7 gigahertz, which comes to approximately 2,417 megahertz."

Question 1. What steps can this Committee take to incentive federal users, especially the Department of Defense, to make more spectrum available for commercial use? Should Congress consider allowing federal agencies to keep more of the proceeds from FCC incentive auctions?

Response. There are a number of steps the Committee could take to incentivize federal users to make more spectrum available for commercial use, while also ensuring that those users can continue to carry out their important missions. I will highlight three steps here.

First, the Committee could facilitate, or consider legislation that would require, the consolidation of various federal use cases. Federal radar systems may be one example. Federal users are known to operate separate systems pursuant to separate spectrum allocations that perform identical or similar functions. So it is worth exploring opportunities to consolidate those systems and spectrum allocations, which could create efficiencies, ensure that federal users can continue to carry out their missions, and free up additional spectrum for commercial use.

Second, the Committee could convene stakeholder meetings to help identify candidate bands and map out the timeline and process for freeing those bands up for commercial use, while continuing to protect the interests of federal users.

Third, the Committee could consider legislation that would require federal users to free up a certain amount of spectrum (or specific spectrum bands) by a date certain, while ensuring that adequate spectrum resources remain available to federal users to carry out their missions.

With respect to the second part of the question, I defer to Congress' ultimate judgment on this issue, but I do believe that Congress should consider allowing federal agencies to keep some portion of the proceeds of an FCC auction of federal spectrum as a means of incentivizing incumbents to free up spectrum.

On the flip side, a slightly different approach to incentivizing the relinquishment of underutilized federal spectrum would be the enactment of spectrum fees. Brent Skorup at the Mercatus Center has written that, "Some countries have applied spectrum fees to government users, which generally attempt to approximate the opportunity cost of the spectrum so that users internalize the social value of the spectrum they occupy. If the opportunity cost fees are high, a user will be induced to use less spectrum to reduce its fees or leave the space completely and sell the cleared spectrum for higher-valued uses."

Question 2. Should Congress implement a spectrum fee to incentive federal users to consider relinquishing underutilized spectrum?

Response. While I defer to Congress' ultimate judgment on whether to implement spectrum fees, I believe that this type of incentive system certainly merits consideration.

5G Wireless Technology Deployment

We are on the cusp of the wireless industry introducing the next generation of technology – 5G. That upgrade to our existing networks is expected to bring us higher data speeds, lower latency, and the ability to support breakthrough innovations in transportation, healthcare, energy and other sectors. And as recent studies have shown, 5G is expected to provide significant benefits to state and local governments, allowing them to become smart cities. However, those networks will also require many more antenna sites than we have today – they will increasingly rely on small cell technologies. To recognize these benefits, a study performed by Deloitte shows that several steps are necessary to remove impediments to antenna siting. Texas is leading the way, as evidenced by recent legislation (Texas Senate Bill 1004) signed into law just last month that streamlines the deployment of next-generation 5G networks. It's also my understanding that the Commission has initiated a proceeding designed to evaluate whether some of those obstacles can be removed.

Question 3. Do you support the Commission's efforts in this area? Do you think that the Commission's proposals are achievable, particularly considering state and local government interests in this area?

Response. As your question indicates, 5G is expected to support breakthrough innovations. In doing so, it can create jobs, spur investment, and grow the economy for the benefit of all Americans. 5G deployments may look very different than traditional 4G deployments, as your question notes, and this is due in part to the fact that 5G deployments should involve a significantly greater number of small cells.

In April 2017, the FCC released a Notice of Proposed Rulemaking and Notice of Inquiry that seeks public comment on a number of ways that the FCC could help streamline the deployment of 5G and other wireless technologies. While I have an open mind about the FCC's proceeding, I support the Commission's effort to seek comment on these issues, and I believe that the agency can achieve results consistent with the long-standing and important role that state and local governments play in this area. Indeed, as your question notes, many state and local governments are adopting ordinances that are designed to promote 5G and small cell deployments.

FCC Priorities

Question 4. My top priority is regulatory reform. Please identify three meaningful regulations that you are interested in repealing during your tenure at the FCC.

Response. I agree with you on the importance and need for regulatory reform. If confirmed, I would work to repeal FCC regulations that are unnecessarily limiting innovation, investment, and deployment.

First, the FCC must take action to ensure that federal regulations are not needlessly deterring the deployment of wireless infrastructure, including infrastructure that can be used for 5G. In particular, the FCC has asked for public comment on whether it should eliminate federal rules that could be slowing down small cell deployments. I support that inquiry. If confirmed, I would welcome the opportunity to examine the record and eliminate any federal regulations that are only

serving to slow the deployment of innovative and advanced wireless technologies.

Second, the FCC has opened a proceeding that aims to identify and eliminate rules that might be slowing the deployment of wireline infrastructure. In particular, the FCC's proceeding asks about eliminating requirements in Part 51 of the FCC's rules. Stakeholders have argued that these requirements are needlessly increasing the costs of deploying next-generation networks and slowing the roll out of new wireline services. If confirmed, I would welcome the opportunity to examine these requirements and eliminate any unnecessary ones.

Third, the FCC's Part 22 rules contain paperwork requirements that apply solely to one set of wireless licensees. Commenters have argued that these requirements impose burdensome and outdated regulations that are ripe for elimination. If confirmed, I would welcome the chance to examine the record and determine whether any such rules can be repealed.

ICANN

Question 5. Last year the previous administration allowed the Federal Government's contract with ICANN to expire. Do you think that was a wise and prudent decision?

Response: No, I do not think it was a wise and prudent decision.

Question 6. Microsoft and Facebook and YouTube, which is owned by Google, all of whom supported President Obama's Internet transition, have signed a code of conduct with the European Union to remove so-called hate speech from European countries in less than 24 hours. Do you think these global technology companies have a good record of protecting free speech? And what can be done to protect the First Amendment rights of American citizens?

Response. The First Amendment operates to prevent the government from abridging the freedom of speech, and Supreme Court case law is clear that there is no exception for so-called hate speech. The First Amendment thus embodies the idea that we should respond with more speech—not less and certainly not government censorship—when confronted with disfavored speech that is protected by the Constitution. To the extent companies are cooperating with governmental bodies to censor disfavored speech under a claim of removing so-called hate speech, then that activity is not consistent with those First Amendment principles. To protect the First Amendment rights of American citizens, it is important that the government not engage in censoring protected speech. I am committed to upholding and protecting the First Amendment rights of all Americans.

Response to Written Questions Submitted by Honorable Dan Sullivan to Brendan Carr

I want to thank you and the current FCC Commissioners for working with my staff to help alleviate some of the burden that the reduction in reimbursement from the Rural Health Care program placed on Alaskan health care providers.

In my state, the price of telecommunications services is so expensive that many rural health care providers cannot afford them without support from the Rural Health Care program. Telemedicine services in Alaska are essential for many of our villages, and they are only possible if a health facility has connectivity.

In enacting the Telecommunications Act of 1996, Congress specifically directed the FCC to ensure that rural health care providers have access to telecommunications services at rates that are reasonably comparable to those for similar services in urban areas of the State. As you are aware, for the first time the demand for funding from the Rural Health Care program exceeded the \$400 million cap.

Question 1. Will you work to ensure the sustainability of the Rural Health Care Program as the FCC moves forward to review further reforms to universal service programs?

Response. As your question indicates, the Rural Health Care program serves important purposes, particularly in Alaska where the state's size, remote areas, and varied terrain can translate into high costs of service, including for healthcare- related communications services. The Rural Health Care program helps reduce the cost of those services. If confirmed, I would look forward to working with my colleagues to ensure the sustainability of the Rural Health Care program.

Question 2. If confirmed, what steps would you take to address this funding issue?

Response. If confirmed, I would look forward to working with all stakeholders to help ensure the Rural Health Care program continues to perform its important purposes. I can assure you that I would approach the issue of funding with an open mind.

Question 3. Will you consider beginning a rulemaking proceeding to evaluate the changes necessary to ensure that the program budget is sufficient to fulfill the purposes of the program?

Response. If confirmed to serve as a Commissioner, I would not set the agenda at the agency meaning, I would not have the authority to begin a rulemaking proceeding by circulating a Notice of Proposed Rulemaking. Only the FCC's Chairman can circulate items for the Commission's consideration. However, if confirmed, I would welcome the opportunity to work with my colleagues to ensure that the program's budget is sufficient to fulfill the purposes it serves.

Mr. Carr, you seem to have extensive knowledge of the FCC and an idea of what you hope to focus on if confirmed. I agree with you that the technology and communications space will significantly help grow the economy, and working to grow the economy is an issue I am very focused on in Congress.

In Alaska, many places do not have any connectivity, and those same places many times are not connected by road. It is costly to deploy telecommunications infrastructure, and while these communities are extremely innovative, a lack of connectivity is a hindrance in growing their businesses and increasing their economic activity.

The carriers in my state are doing great work to bring telecommunications to communities that don't have it, as well has to upgrade existing networks to increase speeds to their urban counterparts. Much of this is due to the great dialogue that has occurred between the FCC, Alaskan carriers, and our Alaska delegation.

Question 4. Will you work with my office to continue exploring ways to improve broadband access in Alaska?

Response. Yes, I would welcome the chance to work with your office on ways to improve broadband access in Alaska.

It is my understanding that environmental assessments (EAs), when required under the FCC's rules, are currently not subject to any processing timelines or dispute resolution procedures. As a result, environmental assessments for new facilities can languish for an extended period of time—sometimes years. This is an unfortunate barrier to feeding our nation's hunger for expanded wireless broadband.

Given my seat on this committee and on EPW, I have a particular interest in finding ways to streamline these procedures.

Question 5. Will you commit to finding ways to streamline the FCC's review of environmental assessments, including through the adoption of "shot clocks" to resolve environmental delays and disputes, in addition to working on additional infrastructure reforms?

Response. Yes, I am committed to identifying ways to streamline these procedures and working on additional infrastructure reforms. I would welcome the chance to work with your office on these issues.

Response to Written Questions Submitted by Honorable Mike Lee for Brendan Carr

Question 1. My understanding is that as of today almost 200 carriers still receive over \$500 million annually in USF funds under the legacy high-cost support program in order to provide voice service in areas where multiple wireless carriers already offer mobile voice and broadband services without USF funding. Of this \$500 million, what percentage actually goes to an area where the USF funding recipient is the only wireless provider in that area?

Response. In 2011, the FCC established an annual budget for Mobility Fund Phase II (MF-II) of up to \$500 million for ongoing support for mobile services, with up to \$100 million reserved for support to Tribal lands. In the MF-II Order the FCC released in March 2017, the FCC stated that "a conservative estimate is that three-quarters of support currently distributed to mobile providers is being directed to areas where it is not needed. In other words, carriers are receiving approximately \$300 million or more each year in subsidies to provide service even though such subsidies are unnecessary and may deter investment by unsubsidized competitors from increasing competition in those areas."