Responses to Written Questions Submitted by Chairman Roger F. Wicker to Ajit Pai

Question 1. At the hearing, Commissioner Jessica Rosenworcel testified that the Federal Communications Commission (FCC or Commission) should distribute a smaller percentage of the Rural Digital Opportunity Fund (RDOF) during Phase I to leave additional funding for Phase II, when more accurate maps are available. What impact would such a change have on serving the maximum number of unserved communities through Phase I of the RDOF auction? Do you believe that moving forward with the distribution of funds as planned will result in significant waste?

Response. If the Commission were to move forward with just a fraction of funding for the first phase of the Rural Digital Opportunity Fund, it could have a devastating impact on the millions of Americans that have long awaited access to the broadband.

Commission staff estimate that nearly 5.4 million unserved homes and businesses are eligible to receive broadband through the Phase I auction—and the \$16 billion we have allocated for Phase I gives each of those homes and businesses a fighting chance in the auction. What would happen if we flipped the funding, and dedicated only \$4.4 billion to the first phase and reserved \$16 billion for the second phase? The proposal could leave 3.9 million American homes and businesses that we know lack broadband by the wayside. While I am pleased that my colleague has apparently shifted away from outright opposition to any Phase I reverse auction (which she previously deemed a "political stunt"), her modified plan to leave millions of Americans waiting for years for digital opportunity is unacceptable.

To answer your second question: Moving forward as planned is an efficient and appropriate use of taxpayer funds. We know right now that nearly 5.4 million homes and businesses lack access to broadband service—and that giving providers in those areas an opportunity to compete for funds in those areas through an auction has been shown to be effective way to maximize the taxpayer's bang for the buck.

Question 2. The Rural Utilities Service at the United States Department of Agriculture provides funding for broadband through its ReConnect program. To your knowledge, has ReConnect funding been used to overbuild existing or planned broadband networks already subsidized by the Universal Service Fund? If so, what steps can Congress and the FCC take to prevent this from happening going forward?

Response. The Commission works closely with our federal partners to ensure that we are not duplicating efforts. We maintain channels of communication at multiple levels within the Commission to coordinate with our federal partners at the Department of Agriculture and have shared with them the areas that were awarded in the Connect America Fund Phase II Auction. We are also coordinating the roll out of the Rural Digital Opportunity Fund and the second round of the ReConnect Program. To my knowledge, these efforts have prevented any ReConnect grants from being used to overbuild existing or planned broadband networks already subsidized by the Universal Service Fund. Nonetheless, the FCC, the Department of Agriculture, and the Department of Commerce's National Telecommunications and Information Administration

prepared a report on how best to coordinate federally supported broadband programs and activities. I have attached that report hereto for your reference.

Nonetheless, let me leave you with a simple suggestion. If the goal is to avoid overbuilding and other duplicative efforts, Congress should allocate funding solely to one agency—the FCC, which has long been primarily responsible for promoting broadband deployment in the United States.

Question 3. How is the FCC engaging with private industry and the National Aeronautics and Space Administration, the Space and Missile Systems Center, the U.S. Space Force, and the Department of Commerce to ensure the Commission's orbital debris rules protect assets in space but also enable U.S. companies to be competitive, lead international space commerce, and encourage investment in cutting edge capabilities?

Response. In 2004, the Commission was one of the first regulatory agencies in the world to adopt comprehensive orbital debris mitigation regulations. Those regulations were based on the U.S. Government Orbital Debris Mitigation Standard Practices developed by the National Aeronautics and Space Administration and other U.S. government agencies, which in turn became the basis for debris mitigation guidelines adopted by the United Nations.

Since that time, the Commission has continued to work with our federal partners to improve debris mitigation practices, including providing staff support to the NASA-led effort to update the U.S. Government Orbital Debris Mitigation Guidelines—an effort that concluded last December.

Given the Commission's central role in licensing commercial satellite systems, we have a responsibility to review our current orbital debris mitigation rules as we enter a New Space Age. That's why we opened a transparent rulemaking process in 2018 to discuss updates to our orbital debris rules and why we worked closely with private industry as well as the Administration to develop new rules. For instance, the Commission incorporated major portions of the U.S. Orbital Debris Mitigation Standard Practices that were recently revised as a result of an interagency effort led by NASA. We will continue to work closely with private industry and our Federal partners as we aim to complete this proceeding.

Question 4. The age of mega constellations made up of thousands of satellites is quickly approaching. How does the Commission plan to create a regulatory environment that properly distinguishes between the spectral and orbital impact from these mega constellations compared to other constellations or individual commercial or research satellites operating in the same orbital regimes?

Response. The Commission has already taken several steps in this regard. For example, the Commission has adopted new rules for small satellite operators to foster new innovation and investment by entrepreneurs, and these rules only permit up to ten satellites to be authorized through a single license. And the Commission has established several processing rounds and conducted close reviews of applications and requests for market access from 11 companies that seek to launch non-geostationary constellations. What is more, in our orbital debris proceeding,

we are looking at the rules we will need to ensure a level playing field for all satellite operators—and rules that will ensure that orbital debris from megaconstellations does not preclude new innovations by smaller operators.

Question 5. Last year, Congress enacted the Television Viewer Protection Act of 2019 (TVPA) as part of H.R. 1865, the Further Consolidated Appropriations Act of 2020. Among other things, the TVPA eliminates the Section 119 compulsory license for importing distant signals, with an exception for long-haul truckers and recreational vehicles. Does the FCC have any plans to evaluate how the expiration of the compulsory license is impacting satellite television consumers?

Response. The Commission staff informally tracks consumers' access to broadcast signals. It is our understanding that DirecTV is the only provider impacted by the elimination of the distant signal statutory copyright license, as it was the only provider that did not carry local-into-local service in all 210 designated market areas as of June 1 of this year. As a result, as of that day, DirecTV lost the ability to use the distant license. Bureau staff understands that DirecTV began to alert consumers earlier this year that they could lose access to distant network signals due to the change in the law. Press reports indicate that around the expiration date of June 1, DirecTV was negotiating with the networks for retransmission consent to continue to carry the distant network signals to some subscribers without relying on the statutory copyright license and had secured deals with all of the major networks except ABC. The Commission has received eight consumer complaints regarding this issue.

Responses to Written Questions Submitted by Honorable John Thune to Ajit Pai

Question 1. Chairman Pai, I appreciate your work on closing the digital divide and for your commitment to connect more Americans, particularly in some of the most rural areas of the country.

In March 2019, Pineland Telephone Cooperative, Inc. filed a petition for reconsideration of the FCC Report and Order (WC Docket No 10-90, 14-58, 07-135, and CC Docket No 01-92). The Pineland petition seeks to allow broadband providers in the affected areas, including some in South Dakota, access to ACAM II funding to deliver high-speed broadband services. With the pandemic crisis heightening the sense of urgency to ensure rural customers have the best possible broadband as quickly as possible, when can we expect to see action on this particular petition?

Response. Closing the digital divide is my top priority and I am proud of the role that small, rural carriers play in accomplishing that goal. The Commission's staff sought comment on Pineland's petition, and the comment cycle on the matter has closed. Our staff are now carefully reviewing the record in the proceeding. I expect to circulate an order addressing Pineland's petition to the full Commission before the end of the year. Please be assured that we will take into consideration the issues and concerns presented by all stakeholders—including those of your constituents—as the Commission determines the appropriate course of action.

Question 2. As you are aware, Congress passed and President Trump signed into the law the TRACED Act, legislation to aimed to help reduce illegal and unwanted robocalls. The law also improved the adoption of technical solutions for blocking illegal robocalls that are both harmful and bothersome to consumers. Additionally, the TRACED Act recognized the importance of legitimate calls, like financial institutions providing customers with important alerts. In addition to the TRACED Act, the Commission has taken several efforts to deter illegal robocalls. What steps has the FCC taken to ensure call blocking technologies do not adversely affect legal robocalls used by legitimate businesses to consumers?

Response. Your question is timely because at its July open meeting, the Commission adopted my proposal to ensure that legitimate businesses have access to adequate redress mechanisms. Specifically, the Commission has required that call-blocking providers make available a single point of contact to resolve inadvertent blocking, that such providers must investigate and resolve these blocking disputes in a reasonable amount of time, and that such providers must make all reasonable efforts to ensure that they don't block critical calls, such as those from Public Safety Answering Points. I was also pleased to work with Commissioner O'Rielly to include in the Further Notice a request for comment on additional redress issues, such as whether blocking providers should be required to notify callers and whether we should expand our redress mechanisms to calls that may be mislabeled.

Responses to Written Questions Submitted by Honorable Jerry Moran to Ajit Pai

Question 1. In your response to a letter from Senator Tester and me, you indicated that the Commission is still actively considering adopting more detailed service quality standards that will apply to all IP CTS providers. That proceeding has been ongoing for quite some time.

When will the Commission complete this proceeding?

Response. The Disability Rights Office is actively reviewing the record on adopting more detailed service quality standards, and recent developments are generating additional information to help us to move forward. Specifically, the Office has recently certified two IP CTS providers that do not use communications assistants, and initial testing indicates that their advanced automatic speech recognition (ASR) technology can provide consumers with better captioned telephone service than more traditional offerings.

For example, MachineGenius showed that its service could provide a speed of answer for 99.9% of connected calls of less than one second, substantially exceeding the existing standard of 85% of calls answered within 10 seconds. Similarly, Clarity's average caption delays for various call scenarios ranged from 1.1 to 1.6 seconds, while CA-assisted providers' average caption delays were significantly longer, ranging from 4.8 to 6.9 seconds. And independent testing showed that MachineGenius's average word error rates ranged from 2.7% to 8.2%, while CA-assisted providers' average word error rates were significantly higher, ranging from 8.9% to 19.5%.

These new IP CTS providers are now authorized to provide service to consumers—conditioned on continued monitoring of their performance. And if these services continue to perform as they have, I expect they will influence the new standard for service in IP CTS.

Question 2. You acknowledged in a recent letter that the FCC is still considering more detailed service quality standards for IP CTS providers, presumably to take into account ASR-only services. But why did the Commission not finish this proceeding before conditionally certifying ASR-only providers?

Response. The Commission is indeed considering new standards in speed, accuracy, and reliability for IP CTS consumers—metrics under which ASR-only providers appear to consistently perform better than incumbent IP CTS providers (and indeed, the Commission has only certified providers whose overall test results equal or exceed traditional providers in these metrics). As such, it would hurt consumers and competition to exclude new providers from certification pending the completion of that rulemaking. Indeed, because new ASR- only providers thus far appear to offer significantly better service than traditional providers, the primary question before the Commission in the standards proceeding is whether to set the bar higher—and challenge incumbent IP CTS providers to improve their services to keep pace with the new competition.

Question 3. You indicated that the Consumer and Governmental Affairs Bureau approved two ASR-only IP CTS applications after receiving test results conducted my MITRE. Was MITRE's test methodology or test results peer-reviewed?

Response. MITRE Corp. is an independent third-party under contract to the FCC. It runs the National Test Lab, which, among other things, conducts testing and assessment of IP CTS technologies. As with other providers, Commission staff reviewed MITRE's test procedures and results carefully to ensure their reliability.

Responses to Written Questions Submitted by Honorable Dan Sullivan to Ajit Pai

Question 1. The 2.5GHz Rural Tribal Window is a unique opportunity to help bring greater internet connectivity to tribal entities through direct access to spectrum. The current pandemic is occupying many resources that would otherwise be available for applying for this program. Is the FCC considering extending the application deadline to accommodate the current crisis?

Response. I agree with you that the 2.5 GHz Rural Tribal Priority Window is a unique opportunity for Tribal entities to get access to prime mid-band spectrum. The Commission is currently considering whether an extension is appropriate and, if so, how long it should be.

Question 2. How is the FCC preparing for the utilization of beam forming, beam steering, and Dynamic Spectrum Sharing in the next generation of transportation?

Response. As 5G is accelerating development of new applications in all economic sectors, including transportation, the Commission has been working to ensure that spectrum users can take advantage of new methods of improving spectrum efficiency. Among these technological improvements are beam forming, beam steering, and dynamic spectrum sharing. The Commission has adopted flexible rules that allow spectrum users to take advantage of these latest developments. Moreover, the Commission has been examining its equipment approval procedures to ensure that proper measurement techniques are used to approve equipment using these advanced technologies. We look forward to the benefit these innovations will have across all sectors, including transportation.

Question 3. What is the plan for spectrum allocation, aside from DSRC and 802.11P for the Department of Transportation, for being able to de-conflict all modes of transportation on the same network?

Response. I should start by noting the Commission does not allocate spectrum for federal users like the Department of Transportation—that is the responsibility of the National Telecommunications and Information Administration.

Regarding commercial spectrum, the Commission continues to provide spectrum access to support all economic sectors, including transportation. In doing so, the Commission is always mindful of implementing rules that ensure that the potential for interference among different users is minimized. For example, the Commission's rules provide for vehicular radars in the 76-81 GHz band using a licensed-by-rule approach in which multiple users can co-exist on the spectrum without having to take any particular precautions against harmful interference. By allowing for flexibility in spectrum use and adopting rules and procedures that permit multiple uses and users to share spectrum, we have been able to ensure successful co-existence among users. Indeed, in our experience, the private market is well-equipped to resolve potential conflicts so long as the spectrum rules of the road, so to speak, are clear. Advancements in technology have given us a powerful set of tools that we can draw on to ensure similar success for future transportation-related spectrum decisions.

Question 4. Does the FCC support or see advantages in utilizing localized wireless networks that keep information as localized as possible and could serve educational or medical districts—especially in places that might not have extensive fiber infrastructure—that may allow more connectivity for children and the workforce?

Response. Wireless Local Access Networks provide wireless broadband access over shorter distances and are often used to extend the reach of a "last-mile" wireline or fixed wireless broadband connection within a home, building, or campus environment. Low- cost unlicensed devices can be used to create such networks for digital information sharing and delivery of other communications-based services to classrooms, libraries, or healthcare institutions—and the Commission's continued push to increase access to unlicensed use of spectrum supports these efforts.

Question 5. What is the FCC's position on allowing the private management of publicly accessible government networks through spectrum sharing?

Response. The FCC always encourages entities to use spectrum as effectively and efficiently as possible. To that end, in situations where that goal can be met through the private management of a publicly accessible government network, the Commission is committed to assisting as needed. For example, the Commission worked with our Federal partners and the private sector to ensure that the nationwide public safety broadband network—FirstNet—was successfully implemented. In the case of FirstNet, a private sector entity, AT&T, is managing the network and providing access for first responders using both dedicated public safety spectrum as well as commercial spectrum, if and when needed. In these situations, the Commission provides oversight to ensure that the terms and conditions of the FCC's authorization continue to be met. And such arrangements are likely to be particularly efficient because the commercial market has every incentive to maximize the use of the spectrum it has, and the government has incentives to use only the spectrum it needs (because it must now internalize the cost of inefficient use).

Responses to Written Questions Submitted by Honorable Todd Young to Ajit Pai

Question 1. Charmain Pai, as the telecom industry is actively building out its early 5G deployments, I'm interested in the possibility of extending MVDDS spectrum licensees the ability to use their 12.2-12.7 GHz holdings for 5G mobile broadband service. I believe the Commission should continue to explore as many feasible options as possible for transitioning to 5G to keep the U.S. internationally competitive.

As the Commission works to free up more spectrum, will you consider initiating a formal rulemaking proceeding that includes MVDDS spectrum, while taking care to address any potential interference concerns that may arise?

Response. Yes. We are actively considering whether the 12.2-12.7 GHz band could be repurposed for flexible, commercial use including 5G. As part of that process, we are examining how to protect or relocate incumbent operations in the band, such as the little used MVDDS.

Question 2. Chairman Pai, your supply chain rip-and-replace effort cast a broad net looking for Huawei and ZTE equipment and may have found more equipment than the recently passed "Secure Networks Act" authorizes replacement of.

If Congress finds the resources, would you work with us on a Secure Networks "Plus" approach to "fix and fund" all of what you've found?

Response. My first priority is, of course, securing the \$2 billion the Commission has previously estimated it will need to carry out the Secure and Trusted Communications Networks Act of 2019. Should Congress decide to appropriate additional resources, the Commission would be happy to work with Congress on a broader approach.