

Congress of the United States

House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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June 19, 2019

The Honorable Wilbur Ross
Secretary of Commerce
Department of Commerce
1401 Constitution Avenue, NW
Washington, D.C., 20230

The Honorable James F. Bridenstine
Administrator
National Aeronautics and Space Administration
300 E Street, SW
Washington, D.C., 20546

Dear Secretary Ross and Administrator Bridenstine,

We are deeply concerned about the potential for degradation of our Nation's weather forecasts by interference from spectrum recently auctioned off by the Federal Communications Commission (FCC). In March, we wrote to the FCC, requesting a delay in the spectrum auction in the 24 GHz band due to reports that the FCC's plans for managing that spectrum allocation would not adequately protect our Nation's weather forecasting assets from radiofrequency interference.¹

We noted in our March 13 letter that we are both strong advocates for the adoption of 5G wireless communications, but that advance shouldn't come at the expense of our ability to protect the lives and property of our citizens from severe weather. In FCC Chairman Ajit Pai's April 29 response, he indicated that he did not share those concerns, stating:

“Based on the record compiled by the Commission, the FCC concluded that these rules would protect the 23.6-24 GHz band from interference.”²

Later in his response, he asserted:

¹ Chairwoman Eddie Bernice Johnson and Ranking Member Frank Lucas to the Honorable Ajit Pai, Chairman, FCC, March 13, 2019.

² The Honorable Ajit Pai, Chairman, FCC, to Chairwoman Eddie Bernice Johnson, April 29, 2019.

“In the nearly-two decades since these rules were adopted, including the past two years during which we specifically solicited input on emission limits for the 24 GHz band, we have not been presented with *any* evidence of harmful interference from these existing services nor a validated study suggesting that operations in accordance with these rules would adversely affect use of the 23.6-24GHz allocation, including for weather forecasting.”³

These assertions by Chairman Pai run counter to public statements made by NASA Administrator Jim Bridenstine and Acting NOAA Administrator Neil Jacobs during testimony in front of the Committee on Science, Space, and Technology (the Committee). During a hearing before the Committee on April 2, 2019, NASA Administrator Jim Bridenstine, in response to a question from Space and Aeronautics Subcommittee Ranking Member Brian Babin, testified that:

“But there is a risk that, depending on the power and the position of the cell towers in the 5G network, it could bleed over into our spectrum, and that’s the risk. And the assessments that NASA has done in conjunction with NOAA have determined that there is a very high probability that we are going to lose a lot of data.”⁴

At a May 16, 2019 hearing before the Environment Subcommittee, Acting NOAA Administrator Neil Jacobs, in response to a question by Subcommittee Chairwoman Lizzie Fletcher, stated the following:

“The number currently proposed by the FCC, minus 20 decibel watts per 200 megahertz, according to the study would result in roughly a 77 percent data loss from our passive microwave sounders. This would degrade the forecast skill by up to 30 percent, so, if you look back in time to see when our forecast skill was roughly 30 percent less than it was today, it’s somewhere around 1980. This would result in the reduction of hurricane track forecast lead time by roughly 2 to 3 days. A good example of this is a data denial study that the European Center did where they withheld the microwave sounder data during the forecast for Superstorm Sandy, and a model, which is the most accurate model in the world right now, kept the storm out to sea. So it’s incredibly important- it’s a critical data set for us.”⁵

The Committee must have the most complete information to inform us about these contradictory statements, and there is limited time available to the Committee given that the World Radiocommunication Conference (WRC-19) occurs in October of this year. The United States must submit its official position on allowable levels of noise in the 24

³ Id.

⁴ “A Review of the NASA Fiscal Year 2020 Budget”, hearing before the Committee on Science, Space, and Technology, April 2, 2019.

⁵ “The Future of Forecasting: Building a Strong U.S. Weather Enterprise”, hearing before the Subcommittee on the Environment, Committee on Science, Space, and Technology, May 16, 2019.

GHz band in advance of the Conference. In order for us to fully understand the testimony before the Committee, please provide us with the following information by June 26, 2019:

1. All studies and analyses (completed or partially completed) that have been conducted by NOAA and/or NASA, contracting parties, or jointly with other agencies, regarding the impacts of the FCC's proposed 5G transmissions in the 24 GHz band on the adjacent 23.8 GHz band that is used by weather satellites for passive remote sensing of atmospheric water vapor. Included with each study/analysis, provide a complete list of all assumptions and inputs used and justification for each input and assumption used.
2. A timeline of events, starting when each agency began engaging on the proposed 24 GHz auction, including when studies and/or analyses were conducted on the impacts and when these studies and/or analyses were presented to the FCC, and each step in the reconciliation process with the FCC.
3. All documents and communications sent to the National Telecommunications and Information Agency (NTIA) from NOAA and NASA pertaining to recommendations for emissions limits to prevent/limit interference in the 23.8 GHz band by 5G operations at the 24 GHz band.
4. All documents and communications sent to the FCC by the NTIA pertaining to recommendations for emissions limits to prevent/limit interference in the 23.8 GHz band by 5G operations at the 24 GHz band.

The Committee has been informally asking for these documents for some time. Given the short timelines imposed by outside events, any delays in transmitting these documents to the Committee could result in the Committee resorting to the use of compulsory processes to acquire these documents that are vital to the Committee conducting oversight on this issue.

If you have any questions about this request, please feel free to contact John Piazza, Chief Counsel for the Committee at (202) 225-6375.

Thank you for your attention to this matter.

Sincerely,



EDDIE BERNICE JOHNSON

Chairwoman
Committee on Science, Space, and Technology



FRANK D. LUCAS
Ranking Member