



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY

Opening Statement

Chairwoman Eddie Bernice Johnson (D-TX)

Full Committee Hearing:
Spectrum Needs for Observations in Earth and Space Sciences
July 20th, 2021

Good morning and thank you to our witnesses for joining us today.

We rely on the radio frequency spectrum in countless ways every day. We use it for GPS, communicating with friends and family, scientific research, weather forecasting, and much more. But spectrum is a finite resource. And as more technologies are developed and deployed – like 5G – the demand for spectrum continues to increase.

One might think of the radiofrequency spectrum as similar to a trendy neighborhood that is attracting a lot of new people. As more residents seek to move in, you might rezone the size of the lots to make them smaller, and convert some parking spaces for bike lanes. You might have to install some new traffic lights. The longtime tenants understandably want to maintain their way of life, but they will inevitably have to make some adjustments. And if a noisy new tenant moves in, it's a problem for the house next door. It's analogous to the situations that have arisen due to increasing demands on the radiofrequency spectrum.

This Committee recognizes the importance of 5G development and supports advancing the technology. But we must be thoughtful about how we proceed. We must ensure that as we deploy 5G and other new technologies, we do not threaten critical earth and space science observations.

Meteorologists have expressed concern for years about increased demand and usage of spectrum. They understand the importance of protecting access to spectrum bands needed for scientific observation. NOAA and NASA raised serious concerns to both this Committee and the FCC about the potential for critical satellite data loss as a result of interference from the 24 gigahertz band. In fact, former Acting NOAA Administrator Neil Jacobs stated before this Committee that the proposed spectrum auction for 24 GHz would result in a degraded forecast skill by as much as 30 percent.

Therefore, Ranking Member Lucas and I requested that FCC delay the auction until the concerns were addressed. Unfortunately, the FCC proceeded with the auction of 24 GHz with minimal limits on out-of-band emissions.

Thankfully, the United States is party to an international treaty on spectrum use. Other nations advocated for a more stringent emissions limit at the World Radio Conference in December 2019. The concerns of the science community should be partially addressed when the FCC conforms its emissions limits with the international standard. But we're only in a better place for weather observations because of the advocacy of other nations. The United States spectrum management process failed our nation's forecasters, astronomers, and climate scientists.

Ranking Member Lucas and I requested that the Government Accountability Office conduct a report on how these concerns were considered and addressed during the 24 GHz auction process. The report was released yesterday. It makes clear that a number of federal agencies have a lot of work to do to improve the process.

I know the United States has what it takes to fix this. If we can establish a more coordinated, whole-of-government approach to spectrum management, we can enable U.S. telecommunications leadership *and* protect important earth and space science observations. This Committee will be asking for accountability from both federal science agencies and the FCC as we all learn to live in a more crowded spectrum neighborhood.

I am pleased we are joined by Mr. Von Ah of the Government Accountability Office, who can shed more light on their report. And our other witnesses can speak to the importance of protecting spectrum for existing federal science applications. They will also help us consider strategies to better address these very legitimate concerns.

Finally, I also want to thank Ranking Member Lucas and his staff for working arm-in-arm with me and my staff on this topic. I now yield to him for his opening statement.