

# United States Senate

WASHINGTON, DC 20510

May 13, 2019

The Honorable Ajit Pai  
Chairman  
Federal Communications Commission  
445 12th Street, SW  
Washington, D.C., 20554

Dear Chairman Pai:

We write with a straight-forward request: Don't allow wireless companies to operate in a 24 GHz band until vital weather forecasting operations are protected. To continue down the path the FCC is currently on, to continue to ignore the serious alarms the scientific community is raising, could lead to dangerous impacts to American national security, to American industries, and to the American people. We urge the Federal Communications Commission (FCC) not to award any final licenses to winning bidders for future commercial broadband use in the 24 GHz spectrum until the FCC approves the passive band protection limits that the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA) determine are necessary to protect critical satellite-based measurements of atmospheric water vapor needed to forecast the weather.

In March 2019, the FCC began auctioning spectrum between 24.25 and 25.25 GHz (the 24 GHz band) for future commercial broadband use. The FCC did this over the objections of NASA, NOAA, and members of the American Meteorological Society (AMS). These entities all argued that out-of-band emissions from future commercial broadband transmissions in the 24 GHz band would disrupt the ability to collect water vapor data measured in a neighboring frequency band (23.6 to 24 GHz) that meteorologists rely on to forecast the weather.

Numerous scientists in the U.S. and elsewhere, and several U.S. federal agencies, have warned that allowing communications in the 24 GHz band at the interference levels permitted by the FCC would substantially impact the accuracy of weather forecasts crucial to the Department of Defense (DOD), public safety officials, the commercial fishing industry, farmers, and millions of Americans who depend on accurate forecasts of floods, hurricanes, winter storms, and tornadoes.

The national security and public safety implications of this self-inflicted degradation in American weather prediction capabilities would be significant. In March 2019, an internal U.S. Navy action officer-level working document concluded that the amount of interference to weather satellites permitted by future commercial broadband uses at 24 GHz operating at the FCC's emission levels would result in "increased risk in Safety of Flight and Safety of Navigation, and degraded Battlespace Awareness for tactical/operational advantage." A copy of that report is attached.

Leadership in 5G networks and devices is undoubtedly critical to our economic and national security. However, it does not enhance America's place in this global race for 5G leadership to advocate for standards that do not pass scientific scrutiny in international forums (such as at the International Telecommunications Union's World Radiocommunication Conference 2019) as the FCC has proposed.

In addition, we ask that you provide us with the following information by June 11, 2019:

1. Provide any computer models, assumptions, and analysis that support the FCC's rule on emission limits from future commercial broadband transmissions in the 24 GHz band and show that it will not impact applications in adjacent frequency bands, particularly satellite measurements of water vapor in the 23.8 GHz band that is so important to weather forecasting.
2. Explain what the FCC intends to do if the International Telecommunications Union (ITU) refuses to accept the current FCC advocated level on emissions limits in the 24 GHz band.
3. Explain the reconciliation process used to resolve the dispute between NASA/NOAA and the FCC in favor of the FCC's position. Please include the timeline of the events in that process and all relevant documents, including emails or other digital communications.
4. Explain and provide supporting documentation related to the FCC's public interest analysis, including any cost-benefit analysis, on the FCC's emissions limit. In particular, explain how the FCC addressed the costs to taxpayers from the loss of billions of dollars of investment in weather-sensing satellites, the costs to public safety and national security, and to the nation's commercial activities that rely on this critical weather data.

Should you have any questions or concerns regarding this request, please contact Rachel Lang of Senator Wyden's staff at (202) 224-5244 or Peter True of Senator Cantwell's staff at (202) 224-4429.

Sincerely,



Ron Wyden  
Ranking Member  
Senate Committee on Finance



Maria Cantwell  
Ranking Member  
Senate Committee on Commerce, Science  
and Transportation