August 12, 2020

The Honorable Collin Peterson
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Peterson,

On behalf of the undersigned organizations representing the weather, water and Earth science community, we would like to thank you for your July 9, 2020 letter to the FCC raising awareness about their recent decision on a proposal from Ligado Networks that will negatively impact the agricultural community as well as numerous other industries and professions. Your efforts are invaluable in support of both the Administration and numerous stakeholders as they continue to strongly push the FCC to pause and reconsider this order.

The American weather and water enterprise has longstanding concerns about the impacts this approval will have on GPS and other technologies that impact the timeliness and accuracy of weather forecasting, which are important to farmers and agricultural producers across the nation. This includes commercial and government operated GPS radio occultation satellites that provide important inputs to space weather and weather models, enabling increasingly reliable mid to long term and seasonal forecasts. We also recognize that reliable weather information is important to enabling the productivity enhancing benefits of precision agriculture.

In addition, **Ligado has a separate proposal still under consideration with the FCC to share 1675-1680 MHz that will directly harm the reception of lifesaving, real time weather satellite information.** *See Allocation and Service Rules for the 1675-1680 Band,* WT Docket No. 19-116 and RM-11681. Given your significant concern about Ligado and the current FCC approval, we wanted to ensure that you are aware of this separate proceeding.

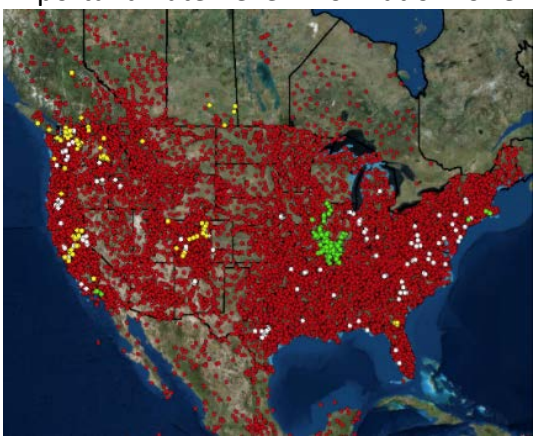
In approximately 100 meetings and comments on FCC proceedings provided over the past four years, the American weather and water enterprise and its users have provided extensive evidence to the FCC about the troubling negative impacts on weather forecasting that would occur if Ligado's petition to share 1675-1680 MHz is granted. **Many of these comments to the FCC have highlighted the importance of this weather information to the agricultural community.**

For the system originally envisioned by Ligado to work, both the GPS and 1675-1680 MHz (weather/water forecasting) proposals would require FCC action. While the proposal impacting GPS has been approved (though we are working with many others to reverse it), this second proposal has not received final regulatory action and we encourage you to join us in dissuading the FCC from approving it.

The Ligado proposal to share 1675-1680 MHz will interfere with the transmission of real-time weather satellite information disseminated to forecasters in government, private industry, and academia who directly contribute to weather prediction and water management across the U.S. for the protection of life and property, including the agricultural community.

DTN, a major weather information supplier to the agricultural community (headquartered in Burnsville, MN), opposes these proposals because they will cause harmful interference to real-time weather data for their meteorologists who develop customized weather information for farmers and agricultural producers. Reliable weather information enables producers and agri-businesses to plan ahead, helping to maximize productivity.

In addition to concerns about GPS, these proposals will also impact the relay of real-time information from flood gauges in the most rural areas of the U.S., as noted in the map of data relay sensors in the U.S. The red dots on the map are sensors (including river, stream and tidal gauges) across the continental U.S. that rely on NOAA satellites to relay their information to users in real time. Under Ligado's proposal, spectrum interference is expected to block the data from some or all of these sensors, which will harm farmers and other rural enterprises who rely on important water level information for emergency response and planning.



Continental U.S. river, stream and coastal gauges that report via 1675-1680 MHz through NOAA's satellites

Over the past five years in the U.S., natural disasters, such as droughts, floods, tornadoes and hurricanes, have been responsible for an average of over $100 billion in losses annually. The reality of such weather disasters have impacted the nation's overall productivity as well, with 3-6% of the variation in the nation's GDP attributable to weather impacts. In addition, the agriculture sector is one of the most weather-impacted in the U.S. economy.

Now is the time to signal to the FCC that spectrum sharing arrangements with Ligado in 1675-1680 MHz should not move forward to prevent interference with satellite technology relied on by the weather and water communities, and all those who rely on the information they produce, such as the agricultural industry.

Thank you for acting on this issue – and staying abreast of the impact of FCC actions on critical weather forecasts. As our nation combats the COVID-19 pandemic, it's paramount that we maintain the services and infrastructure that safeguard Americans' way of life.

Please contact Brittany Webster at the American Geophysical Union (bwebster@agu.org) or Renee Leduc with the American Meteorological Society's Committee on Radio Frequency (renee@narayanstrategy.com) for additional information.

Sincerely,

Alert Users Group (Ventura, CA)
American Geophysical Union (Washington, DC)
American Meteorological Society (Boston, MA)
American Weather and Climate Industry Association (Edmond, OK)
DTN (Burnsville, MN)
GeoOptics, Inc. (Pasadena, CA)
Microcom Environmental (Hunt Valley, MD)
National Weather Association (Norman, OK)
Narayan Strategy (Arlington, VA)
PlanetIQ (Golden, CO)
The Semaphore Group (Jacksonville, FL)
Space Science and Engineering Center at the University of Wisconsin-Madison (Madison, WI)
Spire Global (San Francisco, CA)
University Corporation for Atmospheric Research (UCAR) (Boulder, CO)