

June 15, 2020

The Honorable Mac Thornberry
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Thornberry,

On behalf of the undersigned organizations representing the weather, water and Earth science community, we would like to thank you for your May 7, 2020 letter to the FCC raising awareness about their recent decision on a proposal from Ligado Networks that will negatively impact diverse industries and professions. Your efforts and opposition were a key factor in encouraging both the Administration and numerous stakeholders to ask the FCC to pause and reconsider this order.

The American weather and water enterprise has held longstanding concerns about the impacts this approval will have on GPS and other technologies that impact the timeliness and accuracy of weather forecasting and storm warnings. This includes commercial and government operated GPS radio occultation satellites that provide important inputs to weather models and space weather forecasts.

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.

During 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.

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 and critical DoD operations 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. The satellites most impacted are NOAA's Geostationary Operational Environmental Satellites (GOES).

Meteorologists rely on rapidly collected weather imagery and information gathered and transmitted with GOES to track the movement and intensity of hurricanes, snowstorms, tornadoes, wildfires and many other severe weather events. GOES also relays information in real time from gauges across the country to predict and monitor flooding. The impact of timely and accurate weather forecasts and storm warnings are reflected in the human and economic toll of severe weather events. Over the past five years, natural disasters in the U.S. have been responsible for an average of over \$100 billion in losses annually. The nation's GDP is also tangibly impacted with 3-6% of its variability attributed to weather.

Forecasters currently rely on the GOES-R series, a next generation system providing expanded capabilities, an \$11 billion investment that will continue to serve the American people through 2040. This investment has already protected American lives, property, and businesses through improved hurricane tracking, better flood warnings, increased tornado warning lead times, and modernized space weather forecasts. We cannot allow radio frequency interference to disrupt any portion of this major taxpayer investment in public safety.

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 data receivers relied on by the weather and water communities.

Thank you for acting on this issue – and keeping aware of the impact of FCC actions on critical weather forecasts. As our nation combats the COVID-19 pandemic, it's paramount that we also maintain the services and infrastructure that protect Americans from other threats.

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,

AccuWeather, Inc. (State College, PA and Wichita, KS)
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)