



Ron Marotto P.H., President
Ventura County

Robert Laag, Treasurer
Riverside County

Heidi Huber, Secretary
Sacramento County

April 17, 2023

National Telecommunications and Information Administration
1401 Constitution Ave.
NW Washington, DC 20230

Re: Comment Submission for NTIA's National Spectrum Strategy process

To Whom It May Concern:

On behalf of the ALERT Users Group (AUG), I am writing you in order to urge you to safeguard the 1675-1680 MHz spectrum band currently used to receive and transmit hydrologic data for public safety specifically with the use of the Geostationary Orbiting Environmental Satellites (GOES) along with the forthcoming GOES-Series-R Satellites.

AUG is dedicated to reducing injuries, deaths, and property damage caused by floods. Reliable flood forecasting and early detection of flood conditions are critical components of an effective local flood warning program. For over three decades, user groups have maintained close associations with private sector vendors, consultants and government agencies involved with the business of flood warning. This has contributed substantially to the technological advancement of automated real-time monitoring systems. In addition to flood warning, these technologies are useful in many other areas of water resource management and planning.

AUG is specifically concerned with the real-time delivery of stream, rainfall and other crucial hydrological and meteorological data during high risk storm events. The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service also heavily relies on this data for issuing life-saving flood warnings to the public.

Ground receiving stations reliant on this real-time data are operated and funded by the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, and many regional, state and local water resources and flood control agencies. Across the nation, federal and non-federal agencies work closely together in collecting, sharing, and analyzing this hydrologic data to reduce loss of life, injuries, property damage, school and business closures, and post-flood recovery costs.

Reliable, accurate, and timely data is imperative for flood warnings, emergency management, operational hydrologic models, water supply management, reservoir operations, and recreation safety. Anything less than real-time information transmitted via the GOES and GOES-R satellites using this spectrum will threaten public safety. We believe the risk of radio frequency interference from sharing this spectrum with commercial terrestrial broadband towers, which are many times stronger than the weak signals relayed via these satellites from space, is a significant threat to the continuing operation of this service.



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In addition, emergency managers, first responders, public works officials, engineers, flood control districts, river authorities, reservoir operators, environmental agencies, local news media, and many others rely heavily on GOES radio frequencies (and will rely upon GOES-R frequencies post launch in 2016) to collect real-time hydrologic data and disseminate urgent warning information. Without this time sensitive information, it would not be possible for these people and their public safety organizations to fulfill critical missions related to floods, hurricanes, droughts, dams, levees, tsunamis and other hydrologic hazards.

These users of real-time flood information and the vast numbers of citizens and decision makers who rely on their flood communications cannot risk delayed delivery or loss of this information. Unacceptable delays or losses would result from interference in this band that has not been appropriately accounted for in Ligado/New LightSquared planning, as noted in their filings.

Flooding and drought accounts for a significant amount of the billion dollar weather disasters as tracked and reported by NOAA. The Data Collection System (DCS) data relayed by GOES/GOES-R satellites provide an essential contribution to reducing the impacts of these flooding and drought events.

AUG understands that the proposed high power commercial wireless services are likely to interfere with the low power GOES/GOES-R satellite transmissions to ground receiving stations, especially since these stations will not likely be subject to protection zones.

Manufacturers of receiving equipment have concerns that interference to such strong signals at 1680 MHz will be nearly impossible to mitigate at 1679-1680.4 MHz for the GOES DCS. Engineers indicate that the signal strength of the proposed terrestrial commercial transmitter is over a million times stronger than a DCS downlink to earth system station, which can cause DCS receiver electronics to function improperly.

AUG urges the FCC not to move forward with this action unless adequate protection zones are extended to all areas of the nation where GOES/GOES-R signals are transmitted or received. Such protection is crucial in avoiding the disruption of vital information used to ensure that the nation's economic health, safety and security interests are safeguarded. Without significant research customized to our use of GOES/GOES-R AUG is not confident disruptive interference can be avoided and we will continue to oppose this effort for spectrum sharing.

Such a clear risk of significant interference to DCS users, who range across multiple areas of the economy and public safety functions, in addition to the nation's flood and hydrologic warning industry, is simply not acceptable.

Here are couple examples of how the critical data is used with recent events. First, there have been many fires where the meteorological data is looked at in order to predict fire movement and get evacuation warnings out in order to save lives. Then this year has brought an extreme amount of precipitation and snow to the area. The weather sensors were used in forecasting potential hazards and used to again get warnings out to the public in order to help save lives.

This is why the protection and priority for the GOES/GOES-R satellite downlink 1675-1680 MHz spectrum band is so vitally important to protect.



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On behalf of AUG, the hydrologic warning community and the thousands of citizens we serve, I want to thank you for the opportunity to express our concerns on this important issue.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ron Marotto".

Ronald Marotto, P.H.
President, ALERT Users Group