STATEMENT OF
COMMISSIONER ROBERT M. MCDOWELL

HEARING ON NETWORK RESILIENCE AND RELIABILITY
NASA AMES RESEARCH CENTER
MOFFETT FIELD, CALIFORNIA

February 28, 2013

Over the past year, the Midwest and Mid-Atlantic United States experienced the so-called "derecho" storm while the Northeast was devastated by Hurricane Sandy. These storms produced extraordinary hardships and catastrophic loss for our fellow citizens. They were incredibly disruptive, and exposed fundamental weaknesses in our communications systems that we must start strengthening. The silver lining in these destructive storm clouds is that these natural disasters have served as a wake-up call for government and industry alike across the country.

I am pleased that the Chairman has initiated this series of field hearings to undertake a rigorous effort to analyze the effects of natural disasters and other emergency situations on America's communications systems. We will take what we learn from these hearings, along with public comment, to examine new ideas to prevent or minimize degradation to America's communications infrastructure in the future. Many thanks to our hosts at Moffett Field for having us here today and to the distinguished panelists for advising us on how we can improve America's resiliency in the face of natural or human-made disasters.

Crises resulting from any cause demonstrate how essential our communications networks are to all Americans, especially critical service providers. Police, firefighters and EMS personnel rely on our nation's communications networks to provide emergency services to those in need. Furthermore, Americans depend on these systems for information regarding catastrophic weather events, for access to their loved ones, and for the ability to contact E-911 for help. All information that we acquire from catastrophic events will prepare us better for the next hurricane, blizzard, earthquake, tsunami, tornado, wildfire, flood or mudslide that will undoubtedly confront us at some point.

For instance, the damage caused by last summer's "derecho" storm in the Mid-Atlantic region was simply overwhelming. This destructive windstorm that many people had never heard of before came with little warning and left millions without electrical power. Upwards of 2.5 million people in the greater Washington, DC area were without access to 911 services as a result of this natural phenomenon. A report conducted by the FCC's Public Safety and Homeland Security Bureau found that many of the outages could have been prevented with reliable and functional backup power, monitoring systems and implementation of industry best practices. The lessons learned here will hopefully be noted by other communities so they can work to ensure that such mistakes will not be replicated as they prepare for tomorrow's emergency situations.

More recently, Superstorm Sandy resulted in one out of every four cell towers losing service throughout a 10-state area. The damage was worse in areas that felt the blow of Sandy's

center. For instance, in New York, Long Island and Westchester, 500,000 wired telephone lines were knocked out of service while 3,500 cell sites fell offline. Much of the wireless network loss was due to power outages.

Our mobile infrastructure relies on access to electricity and is, therefore, highly susceptible to power outages. If the power grid fails, then backup power sources are needed to ensure that crucial communications facilities remain functional during emergencies. And all too often, backup power systems are not functioning properly or long enough, leaving these networks silent until downed power grids can be restored.

In the meantime, wireless devices are proliferating at an unprecedented rate. Fifty-one million new devices were connected to U.S. mobile networks in the last year alone to bring the total of American mobile-enabled devices to 424 million. This number is expected to grow to 775 million mobile connected devices in 2017. As Americans become more-and-more dependent on mobile devices, ensuring that our wireless networks remain operational has become paramount.

Unfortunately, we can't prevent disasters from happening. Although it may be impossible to fully prepare for and anticipate any contingency that may occur in the future, it is important for government and the private sector to work together to make sure Americans can connect with emergency responders and one another when they need to most. By studying what went wrong, what went right, and to analyze lessons learned, we can and will help make the American public safer for the next event. Not only must we be prepared for unforeseen natural phenomena, but we must also be mindful that we need hardened and reliable communications systems to be prepared for potential terrorist attacks as well. In so doing, it is my hope that regulators allow the entrepreneurial brilliance of the private sector to shine at its most powerful level without inhibition.

Accordingly, I look forward to hearing from today's panelist to learn more about the latest technological advancements that may be deployed to create resiliency, reliability and redundancy in our communications infrastructure and how current innovations, such as social media and wireless applications, are being used to rapidly disseminate life-saving information during emergencies. I thank all of the panelists for coming today and I look forward to learning more.