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In Response to: PS Docket No. 17-344

I am a student who is currently enrolled in University at Albany’s College of Emergency Preparedness, Homeland Security, and Cyber Security with a concentration on Homeland Security. For purposes of this reply comment, I chose to focus on Verizon’s comments.

**Summary of Verizon’s Comment**

Verizon claims its network and service was resilient in times of emergency and crisis during the 2017 hurricane season. Statistics that Verizon presents include “…more than 98 percent of Verizon’s network facilities in the hardest hit areas in Texas remained in service during and after Harvey.”, and “more than 90 percent of our facilities remained operational over the first days after Irma, and within five days after the storm our network performance was back its normal high level.” (Verizon, 1). The Verizon company stated that their reliability was above par due to wireless network infrastructure resiliency. Verizon said it achieved this resiliency in part by exercising CSRIC best practices that address reliability in high-risk areas. Verizon states that they meet all of the NPSTC’s guidelines in almost every aspect and exceed many of them. The wide variety of methods and practices, in which some are included within the best practices, Verizon focuses on are namely Siting/Placement and Continuity of Operations/Service Restoration. Another Statistic worth noting is that Verizon reports that it only deployed a total of 26 temporary transmitters to keep customers connected in the midst of Harvey and Irma. With great success of performance during Harvey and Irma, Hurricane Maria is not to be forgotten about. Verizon also stated that their limited facilities in Puerto Rico proved to be very resilient. Their earth station and other limited facilities in Puerto Rico remained operational throughout Maria. Overall, Verizon is proud of their own, as well as the FCC’s performance during the chaotic 2017 hurricane season.

**Response to Comment**

In a GAO report in December 2017, it is mentioned that “In April 2016, an industry coalition consisting of CTIA, a wireless industry association, and five wireless carriers announced the Wireless Network Resiliency Cooperative Framework (framework) in response to FCC’s 2013 notice of proposed rulemaking on wireless network resiliency. The framework is a voluntary initiative designed to advance wireless service continuity and information sharing during and after emergencies by enhancing coordination and communication, both among carriers and between carriers and government.” (GAO, 23). One of those five wireless carriers were Verizon. The voluntary framework that was established consisted of five elements. These elements compose efforts to improve disaster response while others focus on preparedness and education. It is indicated by GAO that “Although FCC stated that this voluntary framework would have many benefits, neither industry nor FCC has identified any specific, measurable objectives that could be used to determine whether the framework meets its broad goals, and FCC has limited plans to monitor the framework’s implementation and use.” (GAO, 35). Due to this lack of identifying specific, objective measures; the FCC lacks information on the framework’s outcomes and overall effectiveness. See the **Disaster Information Reporting System** section for thoughts on FCC assessment recommendations.

**Grey Areas**

While Verizon claims to have had great success in maintaining functional operational networks and services, there are some grey areas within Verizon’s response to the FCC’s PS Docket No. 17-344. Verizon stated that they “…had no 911-specific reliability or outage issues for its wireless network during either Harvey or Irma.” (Verizon, 12), however, how could this be if roughly 10 percent of their facilities did not remain operational during the first days of Hurricane Irma, for example? Times of crisis call for times of high demand for wireless communications, thus leading to congestion. As noted before, Verizon deployed 26 temporary transmitters to keep customers connected, specifically 19 for Irma and 7 for Harvey, in which 5 million customers and 1.8 million customers were affected respectively. Out of those total 6.8 million customers impacted by both hurricanes, and from the times the outages first occurred until the time the temporary transmitters were deployed and functional, it is shocking that Verizon had no 911-specific reliability issues or outages. Reasons for the outages in Harvey and Irma mentioned only loss of backhaul fiber connectivity which could have been the reasons for temporary transmitter deployment, generally. With the high demand for emergency communication, thus leading to congestion, were customers truly able to reach through to 911? Also, after their previous statement, it was noted that the storm (it was not noted which storm in particular) forced a number of PSAPs to temporarily cease operations. PSAPs not being able to receive calls is not a fault of Verizon. If this is true, then how were those certain people impacted by the storm able to reach out for help? Verizon states they “…experienced no problems in routing wireless 911 calls effectively to PSAPs or, where PSAPs lost service, to the PSAPs’ desired alternate fallback method.” (Verizon, 17), but as previously mentioned, assumed congestion with some number of PSAPs operationally ceased would presume issues with 911 connectivity.

**Disaster Information Reporting System- Hurricane Maria**

Little information was provided about Puerto Rico throughout Verizon’s comment- although it was stated that “In nearly all the counties for which the Commission activated its Disaster Information Reporting System (“DIRS”) for cell site outages, Verizon’s performance exceeded the industry’s aggregated average.” (Verizon, 1). This suggested performance by Verizon is accompanied by other unknown companies. The FCC ought to determine and disclose to the public why Verizon performed so well and why others didn’t among those whose performance was below the industry’s aggregated average. By doing so, the FCC allows the general public to have insight on best practices and a confirmed showcasing for each company other than merely the company’s self-described successes. If Verizon is correct, some companies performed worse than them and some companies may have even performed better than them, however, the FCC could potentially enlighten the public with evidence to allow true insight.