

May 28 AFD 272 Links and Notes - FCC shenanigans

<https://www.theverge.com/2019/5/23/18637356/5g-interfere-weather-forecast-24ghz-frequency-band-satellite-predict-hurricane>

As reported by [The Washington Post](#) and [CNET](#), the heads of NASA and the National Oceanic and Atmospheric Administration (NOAA) warn the issue could set back the world's weather forecasting abilities by 40 years — reducing our ability to predict the path of deadly hurricanes and the amount of time available to evacuate.

It's because one of the key wireless frequencies earmarked for speedy 5G millimeter wave networks — the 24 GHz band — happens to be very close to the frequencies used by microwave satellites to observe water vapor and detect those changes in the weather. They have the potential to interfere. And according to NASA and NOAA testimony, they could interfere to the point that it delays preparation for extreme weather events.

Last week, acting [NOAA head Dr. Neil Jacobs told the House Subcommittee on the Environment](#) that based on the current 5G rollout plan, our satellites would lose approximately 77 percent of the data they're currently collecting, reducing our forecast ability by as much as 30 percent.

If we hadn't had that data, Jacobs added, we wouldn't have been able to predict that the deadly Hurricane Sandy would hit. A European study showed that with 77 percent less data, the model would have predicted the storm staying out at sea instead of making landfall. Jacobs said later that we currently have no other technologies to passively observe water vapor and make these more accurate predictions.

On April 19th, NASA administrator Jim Bridenstine [made similar comments to the House Science Committee](#). "That part of the electromagnetic spectrum is necessary to make predictions as to where a hurricane is going to make landfall," he told the committee. "If you can't make that prediction accurately, then you end up not evacuating the right people and/or you evacuate people that don't need to evacuate, which is a problem."

https://www.washingtonpost.com/weather/2019/05/23/head-noaa-says-g-deployment-could-set-weather-forecasts-back-years-wireless-industry-denies-it/?utm_term=.cf879d572247

<https://spacenews.com/5g-trumps-weather-in-spectrum-debate/>

https://www.phonearena.com/news/T-Mobile-Sprint-merger-could-still-get-past-the-DOJ_id116311

However, there still may be a way to salvage the merger. [The New York Post reported](#) yesterday that FCC Chairman Pai "consulted" with the DOJ's antitrust chief Makan Delrahim before making the announcement that he would vote to allow the deal to proceed. Many believe that this is a sign that Pai was able to convince Delrahim to overrule the DOJ's staff, which would allow the merger to close. Both agencies have different assignments when it comes to this deal; the FCC is concerned with how the merger will affect the cellular landscape in terms of spectrum, rural coverage and the rollout of 5G service; the DOJ is concerned with the competitive landscape in the wireless industry if the deal goes through. While it is worried about the number of major U.S. carriers dropping from 4 to 3, a 25% reduction, others argue that the combined T-Mobile-Sprint would be better able to compete with Verizon and AT&T.

To win over the FCC, [T-Mobile and Sprint agreed that it would complete 97% of its 5G rollout within three years](#) (85% in rural areas), keep plan prices frozen for three years following the closing of the merger, and sell off Sprint's pre-paid Boost Mobile unit. The report states that the DOJ's Delrahim would like to see T-Mobile freeze prices for seven years instead of the three it agreed to with the FCC. After that, about the only other concession that the DOJ could possibly squeeze out of T-Mobile and Sprint would be for the combined firm to sell off Sprint's pre-paid Virgin Mobile unit. T-Mobile already owns MetroPCS. (The DOJ could ask T-Mobile CEO John Legere to cut his hair, and we wonder if he would agree to that condition to close the deal). An unnamed source who works with both T-Mobile and Sprint believes that DOJ approval is a lock. "It will be hard for (DOJ chief) Makan (Delrahim) to argue this will have a bad impact on competition when the FCC enforces these conditions," the source notes. "The DOJ will clear this unconditionally."

A merger between T-Mobile and Sprint is a match made in spectrum heaven. T-Mobile owns a ton of low-frequency 600MHz spectrum, which dovetails perfectly with Sprint's hoard of mid-range 2.5GHz airwaves. Merging the two will help the combined carrier create a nationwide 5G network using sub-6GHz bands. Verizon and AT&T plan on using mmWave spectrum in the 24GHz to 100GHz range for their mobile 5G service. Frequencies that high travel only a short distance, which is why it will take longer for the nation's top two wireless providers to complete their coast-to-coast 5G networks.

<https://www.latimes.com/opinion/enterthefray/la-ol-t-mobile-sprint-fcc-approval-ajit-pai-20190520-story.html>

One of Pai's priorities as chairman has been to increase the availability of broadband in rural areas, such as sparsely populated Parsons, Kan., where he grew up. T-Mobile and Sprint have promised to extend 5G service to 85% of the population of rural America within three years, and 90% within six years.

And that's problematic. Letting T-Mobile absorb Sprint would reduce the number of national network builders from four to three, and when that sort of shrinkage has happened in other countries, it has led to higher prices and less innovation. The companies, which have promised not to raise prices for three years, argue that the merger will enable them to upgrade to 5G faster, but that's the sort of assertion that merger-seekers *always* make. It was, in fact, what would-be merger partners AT&T and T-Mobile asserted eight years ago, when the next-generation-network-du-jour was 4G. The merger was denied, and here we are with four robust 4G networks instead of three.

The FCC has to consider concerns about prices and innovation in deciding whether to allow companies to consolidate their spectrum licenses, but its review is broader. Its duty is to determine whether a merger or acquisition advances the public interest. That's why companies try to ease qualms about the reduction in competition by promising to deliver more and better service — and even to compete in markets other than their own. Here, for instance, T-Mobile and Sprint "have offered specific commitments regarding the rollout of an in-home broadband product, including to rural households," Pai said.

Ahh, the prospect of real competition in residential broadband — something that's been sorely lacking. Pai hasn't paid much, if any, attention to that issue thus far, being far more concerned with the utter lack of broadband access in many sparsely populated communities. But promises

of this sort of competition have induced the FCC to approve a number of telecom mergers and acquisitions in the past, only to have the newly merged companies all but ignore their commitments.

That's another strike. "The companies have made a handful of promises on 5G, rural buildout and in-home broadband that are speculative, not specific to the merger and completely unenforceable," former FCC official Gigi Sohn, who opposes the T-Mobile-Sprint merger, said in a statement Monday morning. "Does anyone really believe that this FCC, which has asked nothing of the big mobile companies for over two years, will require the companies to abide by these commitments?"

<https://www.fightforthefuture.org/news/2019-03-27-back-in-december-ajit-pais-fcc-quietly-gave-c ell/>

<https://gizmodo.com/ajit-pai-warned-lying-to-congress-is-a-federal-crime-a-1834799010>

<https://arstechnica.com/tech-policy/2019/05/ajit-pai-refuses-to-investigate-frontiers-horrible-telecom-service/>

Federal Communications Commission Chairman Ajit Pai has rejected a request to have the FCC investigate Frontier Communications' business practices in Minnesota, despite evidence that the company has failed to properly maintain its telecom network.

An investigation by the Minnesota Commerce Department already found that Frontier's network has "frequent and lengthy" phone and Internet outages, that Frontier has failed to provide refunds or bill credits to customers even when outages lasted for months, that Frontier is guilty of frequent billing errors that caused customers to pay for services they didn't order, and that it has failed to promptly provide telephone service to all customers who request it. When we [wrote about the investigation in January](#), Frontier said it "strongly disagrees" with the findings but did not dispute any of the specific allegations.

Frontier is [receiving](#) \$283.4 million [each year](#) from the FCC's Connect America Fund (CAF) between 2015 and 2020 to provide rural Internet service in parts of 28 states, including \$27.6 million a year in Minnesota.

The buildouts are being financed by phone customers nationwide through universal service fees. Smith and Sen. Amy Klobuchar's (D-Minn.) letter to Pai in March asked him to investigate "whether the company [Frontier] is in compliance with CAF funding requirements as designated by the agency." The senators' letter noted that "Frontier has received more than \$100 million in federal funding over the last four years to improve broadband services in rural Minnesota," and that the state investigation found that "Frontier may be underinvesting in its service areas for which it received federal subsidies to build out its broadband network."

"We cannot allow companies who promise broadband to underinvest and mislead the public," Klobuchar told Ars today. "The FCC has an obligation to hold companies accountable to ensure efficient and effective broadband deployment and services."

Pai's response to the senators never directly addressed the Frontier service problems, referring to them only as "the information from your letter." Pai's response focused mostly on whether Frontier is on track to meet its Connect America Fund requirement to bring Internet access to nearly 47,000 homes and businesses in Minnesota, without discussing whether Frontier is properly maintaining its network.

The [Minnesota Department of Commerce] investigation issued a report in January 2019, detailing circumstances where consumers incurred interruptions of service for months at a time, slow and insufficient repairs, and unauthorized or inaccurate billing errors. Some consumers were charged for a service never provided, experienced a disconnection of service without notification, and were not refunded for outages or erroneous charges. The complaints and report detail that customers were routinely left unable to reach 911 emergency services. Some of those customers, including elderly, disabled, or other particularly vulnerable individuals, required the use of phone service to monitor pacemakers or other urgent medical needs. Frontier further posed public safety hazards where inaction by the telecommunications provider left cables unburied, tied to trees or propane tanks, or crossing private decks, for months, and in some circumstances years. Furthermore, several customers detailed their frustrations when they paid for an advertised—or "up to"—speed that frequently failed to be delivered by the company. Many of these consumers in our state live in areas that do not have another service provider available to them.