STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL

Re: *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-308.

Last year, I traveled to the University of Colorado to kick off a Silicon Flatirons conference. Let me say one thing about the organizers of this event—they really know how to get a party started. They gathered us to discuss what they called the Spectrum Hall of Shame.

I'm still trying to figure out if it was an honor or a slight that I was asked to get that conversation about shame started. But I think we can learn a lot from shame. I think owning up to our mistakes is powerful. It provides us with the opportunity to do better with what lays ahead. In fact, I think there's a deep undercurrent of optimism in studying what went wrong—so in the future we can get it right. This is true of so many things, spectrum policy included.

That brings me to the 5.9 GHz band that is the subject of today's rulemaking.

It is hard to avoid the buzz about driverless cars. You can question if these vehicles are ready for prime time, or quibble with the change they require to our roadways and civic life, but you can't deny that a lot is riding—literally—on the future of how we drive.

But here's the thing—enthusiasm for autonomous vehicles is not new. In fact, if you fall down the internet rabbit hole looking into self-driving cars, eventually you'll land on Francis Houdina and the American Wonder. You see, all the way back in 1925, Francis Houdina founded a radio equipment firm called Houdina Radio Control Company. From the get-go, this company was focused on reinventing transportation. In fact, it built the first radio-operated automobile.

Here's how it happened: Houdina took a 1926 Chandler Sedan and rigged it with an antenna. Then he set it up so that the radio signals it received operated small electric motors that controlled speed and direction. A crew trailing close behind in a second car maneuvered the remote-controlled Chandler. He christened this makeshift effort the American Wonder.

The American Wonder was the first driverless car to roll down the streets of New York City. Of course, Houdina made sure to take all the appropriate precautions. By that I mean he clung to the running board of the car, ready to take the wheel in an emergency.

The demonstration did not end well. As *The New York Times* recounted it, "the radio car careened from left to right, down Broadway, around Columbus Circle, and south on Fifth Avenue, running down two trucks and a milk wagon." At Forty-third Street, after a crash into a fire engine was barely averted, the police put an end to the experiment.

But here's where this failure succeeded—his demonstration captured the public's imagination. We still swoon at the prospect of autonomous driving. We still marvel about what it could mean for driving, for safety—and we still experiment, just not on the streets of New York.

So it was in 1999—two decades ago—when the United States set aside 75 megahertz of spectrum in the 5.9 GHz band for dedicated short range communications, or DSRC. DSRC was designed for cars to talk to each other in real time to help reduce accidents. As the FCC acknowledged, DSRC can improve safety by warning drivers of an impending dangerous condition in time to take corrective action.

But in the twenty years since the FCC allocated this spectrum, that really hasn't happened. Today, autonomous vehicles have moved beyond DSRC to get around and communicate—whether that's with radar, LIDAR, cameras, sensors, on-board mapping tools, or new cellular technologies, like Cellular-Vehicle to Everything, or C-V2X. Today just a few thousand vehicles have DSRC on board out of the more than 260 million cars on the road.

So let's be honest: Our bet on DSRC didn't pan out the way we thought it would. In fact, the National Transportation Safety Board has said it will be up to three decades before the majority of

vehicles on the road have DSRC capability—which is what is needed for this safety technology to be truly effective. Fifty years from spectrum start to finish is a long time. I don't know about you, but I'm hoping we will have flying cars by then.

Let me be clear: we should support automobile safety. However, our spectrum policies supporting safety need to be current. So we should speed the way for our thinking about these technologies to be up to totally up to date. And when we do, let's acknowledge that other countries are doing this using less spectrum than the 75 megahertz that the United States initially set aside and remember that in fact, only a very small portion of those airwaves were set aside by the FCC for basic safety messaging.

So it's time to take a fresh look at this band and see if we can update our commitment to safety and also develop more unlicensed opportunities for Wi-Fi. This is a subject I've worked on with my colleague Commissioner O'Rielly for more than four years. And I want to commend him for his thought leadership on this topic and his perseverance. Turns out persistence pays off. I also want to thank the Chairman for moving forward and kicking off this discussion today.

It's important because Wi-Fi today is congested. Right now, there are over 9 billion Wi-Fi enabled devices. But billions and billions of more devices are coming our way with the internet of things. On top of that, we know that as much as 70 percent of 5G traffic will be offloaded to Wi-Fi. Add this up, and we will need a significant swath of new unlicensed spectrum to keep up with demand.

The 5.9 GHz band is the ideal place to explore Wi-Fi expansion because it's adjacent to an existing unlicensed band. That means we have the opportunity to introduce new wideband channels—channels that will be able to take advantage of new standards and deliver speeds even faster than 1 gigabit per second. In other words, this is where we can start to develop next generation Gigabit Wi-Fi. According to a report issued last year, opening the 5.9 GHz band for Wi-Fi could add between $60 and 105 billion to our gross domestic product.

So I support today's effort. I believe there is no shame in correcting course. And I think it's time to be ambitious and find a way forward that puts the 5.9 GHz band to fuller use.