

**STATEMENT OF  
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Further Notice of Proposed Rulemaking, GN Docket No. 12-354

If you want to get a glimpse into the future of spectrum policy, take a look at the 3.5 GHz band. What we are poised to do with this band is creative, innovative, and could serve as the blueprint for making smarter use of our airwaves going forward.

But before looking ahead, it is helpful to look back at how we got here. Four years ago, the National Telecommunications and Information Administration (NTIA) identified the 3.5 GHz band as one of the spectrum bands most suitable for shared use between government and commercial interests. But the response to the NTIA proposal was muted, interest was limited, and enthusiasm was hard to find. Because it was apparent to everyone that protecting existing users in the band—from Department of Defense radars to commercial fixed satellite services—would mean significant geographic limitations for new services. As a result, the ability to make use of this spectrum was limited in the most populous areas of the country. Moreover, because the band is above 3 GHz, it did not hold much appeal for mobile broadband. After all, signals at high frequency like this can fade too quickly.

So the outlook for commercial opportunity in the 3.5 GHz band was not good. But now, based on recommendations from the President's Council of Advisors on Science and Technology, rather than discarding this band as junk, we are staring at new opportunities. These opportunities will be built on a creative three-tiered approach to spectrum access. This proposal simultaneously protects existing users, creates new spectrum licenses custom-built for small cell deployments, and opens up more spectrum for unlicensed services—the jet fuel of wireless innovation. This is very cool—and very smart, too.

But setting aside history and the here and now, I want to talk about what our proposals mean for the future.

First, with our work on the 3.5 GHz band we demonstrate that we are leaving behind the tired notion that we face a choice between licensed and unlicensed airwaves. This kind of division is a simplistic relic from the spectrum past. We cannot let it haunt us in the future. Because there is no doubt that good spectrum policy requires both licensed and unlicensed services. Moreover, the next generation of wireless devices and the coming Internet of Things will not rely on a single spectrum band to function. Instead, services will overcome spectral and physical challenges by moving from frequency to frequency—sometimes on spectrum that is licensed and sometimes on spectrum that is unlicensed.

Second, with our work on the 3.5 GHz band we make clear that small cells have a big future. They can expand connectivity and facilitate more efficient use of existing frequencies. They can cover areas that cannot be reached using macro cell services—and at the same time they can limit interference risk. In fact through small cell use, what was once considered a weakness of higher spectrum bands—namely short propagation distance—can be turned into a strength.

Third, if we can manage the exclusion zones that have previously limited interest in the 3.5 GHz band, we may have also discovered the key to unlocking use of another 120 megahertz in the 5 GHz band. That's because the same kinds of federal radar systems that use the 3.5 GHz band also operate in the 5350-5470 MHz band. If this band sounds familiar, that's because it was a band identified by Congress in the Middle Class Tax Relief and Job Creation Act as a potential new home for unlicensed services. But our efforts to realize this potential have been frustrated by the usual and familiar—the needs of existing users in the band, including federal radar systems.

However, as we move closer to solutions for the 3.5 GHz band, we just might have blueprint for freeing more spectrum for unlicensed services in the 5350-5470 MHz band. In other words, what we learn from managing exclusion zones in the 3.5 GHz band could yield possibilities for commercial services in the 5 GHz band. That would be a good way to honor our directive from Congress, a good way to reduce congestion on licensed service networks, and a good way to increase unlicensed spectrum opportunities. These are all good things that can lead to more spectral support for the Internet of Things.

So thank you to the Wireless Telecommunications Bureau and Office of Engineering and Technology for your creative work on the 3.5 GHz band and for your continuing work on more innovative spectrum possibilities in the future.