STATEMENT OF
CHAIRMAN AJIT PAI

Re: *Unlicensed White Space Device Operations in the Television Bands*, ET Docket No. 20-36.

Beatles fans know well the "White Album," which included songs that were inspired by the band's journey fifty-two years ago this month to a remote ashram in the rugged foothills of the Himalayas.

Perhaps inspired by their creative example, today we launch a proceeding named for the empty "White Spaces" in the spectrum bands allocated to broadcast television. Our hope is that we will similarly enable a "Revolution"—this time, one of connectivity across rural and remote areas of this country.

To understand why this proceeding holds that kind of promise, it's important to recognize the challenge of bridging the digital divide in rural and remote areas. In places that often have sparse populations and rugged terrain, it can be difficult and/or expensive to deliver high-speed Internet, including wireless broadband.

But enabling unlicensed use of TV White Spaces—channels in the television spectrum bands where there are no television stations—can be a game changer. That's because these White Spaces are in a region of spectrum that is particularly attractive for delivering services over long distances and coping with variations in terrain. These airwaves are thus well-suited for delivering broadband to Americans in rural and remote areas. Moreover, because White Space devices operate under our unlicensed rules, barriers to entry are low, enabling anyone with a compliant device who follows the relevant Commission rules to unlock the potential of this spectrum to provide wireless broadband. I saw the promise of White Spaces technology in South Boston, a town in rural Virginia, where I met a student who said getting Internet access in his home through a White Space device was a game-changer.

Now, the Beatles were successful in composing the White Album in a matter of months, but it's taken the Commission much longer to establish its rules for White Spaces. In 2008, the Commission first authorized unlicensed white space device operation in portions of the VHF and UHF broadcast television bands that were not being used by TV broadcasters and associated services. In 2010, 2012, and 2015, the Commission took steps to promote additional opportunities for unlicensed white space devices to use spectrum in the TV bands. In 2015, the Commission promoted further use in the repacked TV bands by authorizing white space device operations in the 600 MHz duplex gap, in unused spectrum in the 600 MHz service band, and in unused portions of television channel 37. In March 2019, we provided additional flexibility for fixed white space devices to operate at up to 100 meters above ground in "less congested" areas.

And today, we're advancing proposals that could spur significant growth of the white space ecosystem and extend Internet connectivity to many more Americans. Specifically, we propose to increase the power and antenna height limits for fixed white space devices deployed in less congested areas to improve coverage and lower costs. We propose to authorize higher power mobile white space device operation within specified "geo-fenced" areas to enable the provision of broadband services on school buses and other mobile platforms such as agricultural equipment. And we propose to amend the rules to better accommodate the narrow bandwidths associated with many Internet of Things (IoT) applications.

I'm optimistic that these proposals will expand broadband deployment to more rural Americans while also protecting television broadcast signals. And I commend Microsoft and the National Association of Broadcasters for working together in a cooperative manner to develop them. This cooperation is vital. Because at the end of the day, television broadcasters enjoy top priority in the TV

spectrum bands, and we must not take any action in this proceeding that would end up causing harmful interference to television broadcasters.

I would like to thank the many dedicated staff whose contribution to this item was invaluable, including from the Office of Engineering and Technology, Martin Doczkat, Ira Keltz, Paul Murray, and Hugh Van Tuyl; from the Wireless Telecommunications Bureau, Steve Buenzow, Roger Noel, Blaise Scinto, Joel Taubenblatt, Jennifer Tomchin, Mary Claire York, and Janet Young; from the Office of Economics and Analytics, Catherine Matraves and Patrick Sun; from the Media Bureau, Mark Colombo; and from the Office of General Counsel, Douglas Klein.