

STATEMENT OF CHAIRMAN AJIT PAI

Re: *Spectrum Horizons*, ET Docket No. 18-21; *James Edwin Whedbee Petition for Rulemaking to Allow Unlicensed Operation in the 95-1,000 GHz Band*, RM-11795 (proceeding terminated).

The horizon for air travel was once thought to be the speed of sound—Mach 1. But on October 14, 1947, test pilot and World War II Air Force Captain Chuck Yeager stepped into his Bell X-1 airplane, the “Glamorous Glennis.” Despite having two broken ribs, which prevented him from being able to shut his cockpit door by himself, he made the first airplane flight to break the sound barrier.¹ And he didn’t stop there. By 1953, Yeager, who celebrated his 96th birthday last month, had once again extended the horizon for flight, setting a new air speed record of 1650 mph—nearly 1000 mph faster than the flight that broke the sound barrier.²

Today, we too extend the horizon—this time with respect to spectrum. Just like Mach 1 speeds, the airwaves above 95 GHz—extremely high-frequency, short-wavelength bands of spectrum—were previously thought to be unapproachable (in our case, for wireless applications). However, recent evolutions in technology have led us to look to these “spectrum horizons” for new services and applications, such as personal health monitoring systems, see-in-the dark imaging, and centimeter-level position, as mentioned in Professor Rappaport’s presentation.

Today, we take big steps towards making productive use of this spectrum. We allocate a massive 21 gigahertz for unlicensed use and we create a new category of experimental licenses. This will give innovators strong incentives to develop new technologies using these airwaves while also protecting existing uses.

These steps are groundbreaking, but I’m confident that there will be more ground to break. We will continue to watch the development of spectrum horizons, including for potential non-experimental, licensed uses of spectrum above 95 GHz in the future. And we will continue to act boldly so that the United States continues to lead the world in wireless innovation.

Today’s item would not be possible without the work of our forward-thinking staff, in particular Bahman Badipour, Brian Butler, Rashmi Doshi, Michael Ha, William Hurst, Steven Jones, Ira Keltz, Julie Knapp, Nicholas Oros, Aspasia Paroutsas, Siobahn Philemon, Jamison Prime, and Hugh Van Tuyl from the Office of Engineering and Technology; Stephen Buenzow from the Wireless Telecommunications Bureau; Nicole Ongele from the Office of Managing Director; Maura McGowan from the Office of Communications Business Opportunities; and Andrea Kearney and Deborah Broderon from the Office of General Counsel.

¹ Jason Paur, *October 14, 1947: Yeager Machs the Sound Barrier*, WIRED, (Oct. 14, 2009), <https://www.wired.com/2009/10/1014yeager-breaks-mach-1/>.

² *Pioneer Profile: Chuck Yeager (1923-Present)*, AAIA, <https://www.aaia.org/SecondaryTwoColumn.aspx?id=15204>.