

**STATEMENT OF
COMMISSIONER AJIT PAI**

Re: *Promoting Expanded Opportunities for Radio Experimentation and Market Trials under Part 5 of the Commission's Rules and Streamlining Other Related Rules, ET Docket No. 10-236; 2006 Biennial Review of Telecommunications Regulations—Part 2 Administered by the Office of Engineering and Technology (OET), ET Docket No. 06-155*

Experimentation is a hallmark of the American tradition. Indeed, one might argue that it is America itself. In 1831, Alexis de Tocqueville famously described this country as a “great experiment.”

In the communications context, the experimental spirit is reflected in laws and regulations. Section 303(g) of the Communications Act of 1934, for instance, directs us to “[s]tudy new uses for radio, provide for experimental uses of frequencies, and generally encourage the larger and more effective use of radio in the public interest.” Our longstanding Experimental Radio Service rules fulfill this mandate. These regulations have been an unquestionable success, enabling a broad range of experiments and testing throughout the radio spectrum while protecting incumbent licensees from interference. And these experiments have led to significant breakthroughs: from the Mayo Clinic’s development of patient monitoring equipment, to the development of direct sequence spread spectrum modulation techniques used by some Wi-Fi standards, to light-up bracelets that the band Coldplay distributed at the 2012 Grammy Awards.

Today’s item improves the existing experimental license process. It consolidates all the rules that experimenters must follow into one location: Part 5 of our rules. It also creates new opportunities for innovators to more easily conduct experiments that may lead to the next technological success. Overall, I believe that this order will encourage wireless research and development, and I am therefore pleased to support it.

To be sure, there is another side of the coin when it comes to experimental radio, and that is the interests of licensees and the hundreds of millions of Americans that use licensed wireless services. Licensees must be able to manage their spectrum without impingement, and consumers who rely on licensed services should not be subject to harmful interference. The common-sense safeguards embedded throughout the order protect these interests. For example, experimenters may not cause interference to any licensed users—primary or secondary—and must show their work in that regard prior to every experiment. Experimenters that seek to use critical service bands, such as those involving Commercial Mobile Radio Service and public safety, must notify potentially affected licensees. Experimenters must post the details of their proposed experiment on the Commission’s web-based registration system. They must provide a point of contact to enable an immediate shutdown of the experiment should a problem occur. We also may require an experimenter at any time to coordinate with an incumbent licensee. Finally, we require experimenters to report on the results of their experiments, including interference. These safeguards, and others applicable to holders of the new medical and compliance licenses, should promote the happy balance of robust experimentation and the unencumbered use of spectrum purchased at auction.

Of course, this prediction presumes general adherence to the old-fashioned virtue of good faith. The Office of Engineering Technology (OET) has informed us that the vast majority of experimental applications do not come close to threatening harmful interference. But experimentation, by definition, means trying something where the outcome is not always known. As Amazon CEO Jeff Bezos once put it, “It’s not an experiment if you know it’s going to work.” One unintended consequence of an experiment could be interference. To address this possibility, I hope that in the coming months OET will

establish a formal complaint procedure¹ so that any dispute about interference can be resolved fairly and expeditiously. And it goes without saying that we expect all parties involved to work together to identify and resolve any dispute before it gets to that point.

Finally, the thoughtfulness, institutional knowledge, and hard work that went into this item evince the extraordinary professionalism of OET. I especially would like to thank Julie Knapp, Bruce Romano, Rodney Small, and Ira Keltz for their dedication to this effort. I am excited to see what American innovation holds in store for us as a result of today's action.

¹ *Report and Order*, para. 83.