

**STATEMENT OF
CHAIRMAN TOM WHEELER**

Re: *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services, GN Docket No. 14- 177; Establishing a More Flexible Framework to Facilitate Satellite Operations in the 27.5-28.35 GHz and 37.5-40 GHz Bands, IB Docket No. 15-256; Petition for Rulemaking of the Fixed Wireless Communications Coalition to Create Service Rules for the 42-43.5 GHz Band, RM-11664; Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 to Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services, WT Docket No. 10-112; Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0-38.0 GHz and 40.0-40.5 GHz for Government Operations, IB Docket No. 97-95*

With today's Spectrum Frontiers NPRM, we take another step to help foster the next evolution in wireless technology and maintain U.S. leadership in wireless. In addition, this item offers a great example of the type of forward-looking policymaking that the fast-moving communications technology sector demands of this agency.

From 2010 to 2012, I had the honor of serving as Chairman of the FCC's Technological Advisory Council, what most people call the TAC. One of our assignments was to identify and anticipate innovations that will spur job creation and economic growth and then formulate actionable policies to enable this innovation. Led by John Leibovitz and Michael Ha, the TAC's Spectrum Frontiers working group embraced this challenge, and their work laid the foundation for today's item.

It's not surprising that multiple TAC working groups focused on seizing the opportunities of mobile broadband. According to Boston Consulting Group, mobile technologies generated \$3.3 Trillion in global revenue last year and were directly responsible for 11 million jobs. In the 21st century, leaders of the mobile economy will be leaders of the global economy.

Thanks to great U.S. inventors and entrepreneurs, America is setting the pace in the mobile revolution. The mobile apps economy is a "made-in-the-USA" phenomenon that has already created more than 750,000 U.S. jobs. More than 99 percent of smartphones worldwide run U.S. operating systems, up from about 20 percent in 2009. And the U.S. was the first nation to deploy LTE wireless networks at scale, making America the test bed for early 4G innovation. Roughly half of American mobile subscribers had 4G connections at the end of 2014, compared to 13 percent of subscribers in Europe and 10 percent in Asia.

In the competitive mobile marketplace, standing still means falling behind. We need to be looking to the future of wireless. We need to be looking at 5G.

The development of the next generation of wireless technology—commonly called the fifth-generation or 5G—is already underway around the world. Our expectation is that this new technology will enable a platform that can support multiple uses and users – including high speed fixed and mobile broadband to consumers – but also networked industrial applications, sensors, and an unknowable number of other wirelessly enabled devices. We also expect next generation commercial networks to be fully heterogeneous, leveraging wide area coverage in low bands (including the 600 MHz band) and new, higher frequency bands for densification.

The U.S. led the way in 4G deployment, partly because the FCC identified spectrum for next-generation wireless, largely in the 700 MHz band, and made it available as part of the DTV transition. We want to build on this great success story and capitalize on the 5G opportunity. This will require an approach that continues to leverage the Commission's flexible use spectrum policies and its efforts to make low-band, mid-band, high-band, licensed (shared and exclusive-use), and unlicensed spectrum available for wireless broadband.

Today, we propose new service, licensing, and technical rules to make some of these available for new, flexible uses, including opportunities for mobile, fixed, unlicensed, satellite, and other uses. Throughout this proceeding, we will continue to work with stakeholders, including mobile, fixed, satellite, and federal users, to help craft rules that allow new technologies to expand and coexist.

We must pay close attention to the security of these future networks, systems and devices. The overarching goal here is to ensure that future networks, systems and devices are designed to be as secure as possible from the start. Security by design assumes, among other things, that the specifications to which new products are designed treat security like any other critical design principle, the FCC seeks to stimulate early security activity among 5G development stakeholders.

At the upcoming World Radiocommunication Conference (WRC), the international community will be deciding which bands will be studied and later identified for advanced mobile use at the next WRC in 2019. The bands we propose are consistent with the U.S. position at WRC, and we are committed to working with domestic and international partners to develop rules for these bands and conduct sharing and compatibility studies. We are thinking globally, and want to work cooperatively with our international counterparts.

We have an opportunity in this proceeding to continue to push our flexible use policies in a way that promotes access, innovation, security, and the development of the next great generation of wireless technology. I encourage all stakeholders to help the United States take advantage of this opportunity.

Thank you to the staff of the Wireless Bureau, the Office of Engineering and Technology, the International Bureau, and the Public Safety and Homeland Security Bureau for their work on this item.