Good morning. I appreciate the opportunity to join the Subcommittee as it conducts further oversight of the Federal Communications Commission. I welcome any questions the Subcommittee Members may have on these or other topics.

Just two weeks ago, I returned from spending nearly a week at the World Radiocommunication Conference 2019 (WRC-19) in Sharm El-Sheik, Egypt. I thought the Subcommittee might find it valuable if I took this opportunity to share my views about the event and its potential implications. Before I do so, I want to extend my deep gratitude to the entire U.S. delegation, especially the hardworking staff of the Commission’s International Bureau.

World Radiocommunication Conference

As this Subcommittee knows well, WRC is a roughly month-long event held every three to four years by the International Telecommunication Union (ITU), a specialized agency of the United Nations, for the primary purpose of harmonizing spectrum use among the member nations. This experience in Egypt complements my participation at WRC-15 in Geneva, Switzerland.

While the official WRC-19 agenda consisted of over 40 items, from an FCC perspective, the top issues considered at WRC-19 were: (1) safeguarding 24 GHz and other bands from unnecessary technical restrictions in the guise of protecting passive services; (2) ensuring the ability to offer International Mobile Telecommunications services in the 28 GHz band while permitting Earth Stations In Motion (ESIMS) in portions of the world; (3) preserving and expanding unlicensed options in the 5 GHz band; and (4) establishing the future agenda items for (WRC-23 and WRC-27), including providing mid-band opportunities for 5G and protecting the option to permit unlicensed spectrum services in the 6 GHz band. Based on these priorities, the outcome of WRC-19 was mixed: the conference achieved some of these objectives in various, muddied forms.

Despite meeting some of our goals to a certain extent, WRC-19, like WRC-15, raised some fundamental concerns that ultimately call into question the continued value of future conferences. In particular, it was very evident that certain foreign delegations were sent with clear directions to oppose the United States and other forward-thinking nations. This appeared, from my viewpoint, to be done for larger geo-political purposes and to protect domestic industries from competition from U.S.-based companies. For instance, during various debates, I witnessed Russia object at nearly every possible opportunity, on very mundane matters to more significant ones, preventing agenda items from moving forward. Moreover, while most of the attendees were generally able to find commonality, or, at a minimum, were willing to seek compromise, China and France stood out as unreasonably obstinate on various
matters. And, such conduct went far beyond normal negotiation strategy, serving to further sour many other participants’ perspectives regarding the value of WRC and, more fundamentally, the ITU itself.

It should be commonly accepted that international spectrum harmonization, especially in a 5G universe, is incredibly valuable. It must not, however, come at the expense of U.S. interests and those of like-minded countries. Clearly, harmonization lowers equipment costs by decreasing the necessity to manufacture different chips and multiple versions of the same equipment for different bands, thereby allowing, in effect, global bulk production and economies of scale. It also eases deployment for operators and vendors, lowers the costs of end user equipment for consumers, and allows Americans to receive wireless services when they travel abroad.

At the same time, the U.S. is not without options if certain member nations of the ITU continue to disrupt existing processes and slow progress towards a next-generation wireless world. Consider what would happen to the organization if the United States worked with Japan, which happen to be the ITU’s two largest funders, to force change or even cut off annual funding. Ultimately, we should not let ourselves be obstructed by rogue nations that have little interest in global wireless development or are willing to undermine progress for purposes of a larger self-interested agenda. This is one reason I think the U.S. should explore the formation of a G7-like organization or loose coalition of leading wireless nations, as an alternative to the ITU. Near-global harmonization could be achieved through agreement of the largest, leading wireless nations of the world. To some degree, this is why the private standard-setting organizations — i.e., those outside the ITU — have become more prominent and why I have also spent considerable time ensuring these entities are not sidelined by certain nations’ political agendas.

Spectrum Policy

Another major take-away from WRC-19 is that other nations have no intention of waiting for and facilitating U.S. leadership on the next generation of wireless services, be they 5G, 6G, or something else. Indeed, many countries already have allocated sufficient spectrum bands for their immediate needs and were more than happy to use the WRC process to slow U.S. spectrum progress. This reaffirms my belief that for the U.S. to lead in 5G wireless services, we must avoid any delay in finalizing spectrum allocations and commencing deployments. To me, this means that we must pursue speed ahead of other potential social objectives. To do otherwise is to give the rest of the world a head start, and if a sufficient leading edge can be achieved by other countries, some of which do not believe in economic or political freedom, these other nations will have the ability to dictate the progress of our wireless future, rather than the U.S. leading such technological advancement as we have in the past.

In terms of specific spectrum bands, I believe that the premier opportunities reside at the C-Band (3.7-4.2 GHz) and the 3.1 to 3.55 GHz band, which is directly below the newly-operational CBRS. Having championed the reallocation of a portion of C-Band for over three years, it is great to see the debate mature to one focused on the means to complete reallocation. The other key debate components, including amount of spectrum, protection of current contractees, and need to reallocate 6 GHz in timely fashion, have all generally been settled, and my initial principles have become universally agreed upon. Given that the Chairman has announced an auction for 2020, we must do all possible, within legal constraints and respecting current licensees, to meet this timeframe.

For the 3.1 to 3.55 GHz band, the Commission is initiating a proceeding in December on the fairly narrow aspect of relocating commercial incumbents. The remaining effort, which involves moving DOD radars to clear a portion from 3.45 to 3.55 GHz and opening the rest of the band to sharing, needs to be
completed in the very near term. This will require some heavy lifting and the Subcommittee’s assistance in this matter will be needed.

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Thank you again for inviting me to testify. Again, I welcome your questions.