September 18, 2015

VIA ELECTRONIC FILING

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Re: Use of Spectrum Bands Above 24 GHz for Mobile Radio Services; GN Docket No. 14-177

Dear Ms. Dortch:


We discussed Iridium’s unique public safety mission and its unique network architecture that allows it to carry out this mission. Iridium’s network is comprised of 66 cross-linked non-geostationary orbit satellites. Operating as a fully meshed network, the Iridium constellation can receive voice and data communications from nearly anywhere in the world, route them instantly—and securely—through space, and transmit them almost anywhere in the world. We also discussed Iridium NEXT, the next generation of the Iridium network that, among other things, will be capable of providing space-based ADS-B real-time flight monitoring and advanced Global Maritime Distress and Safety System (GMDSS) services. Paving the way for space-based ADS-B services is one of the priorities of the United States at WRC-15.

Iridium emphasized that its earth stations, although fixed in location, use phased array antennas that sweep from horizon to horizon, posing unique challenges to the entry of 5G services in the 29.1-29.25 GHz band. Because of the span of Iridium’s steerable antennas, aggregate interference from terrestrial deployments could impede uplink operations—with disastrous results. Iridium’s earth station operations could also interfere with the operations of 5G infrastructure, or create unacceptably large holes in the 5G coverage map due to the geographic separation required to minimize the risk of harmful interference to acceptable levels.

In light of the nature of its mission, and the difficult sharing challenges that are inherent in a NGSO system, Iridium urged the Commission not to address the 29.1-29.25 GHz band in the upcoming NPRM and to defer consideration of this band to a future proceeding. Addressing the 29.1-29.25 GHz band now risks misguiding developers of 5G technology, distorting investment decisions in mobile broadband research and development, and undermining the U.S. position at
WRC-15. Iridium maintained that the Commission would do better to focus on superior candidates for 5G operations, rather than a small sliver of spectrum supporting communications that the public simply cannot do without.

Sincerely,

Scott Blake Harris
Counsel for Iridium Communications, Inc.

cc: meeting attendees