

**Remarks of FCC Commissioner Michael O’Rielly
Before the Satellite Industry Association Annual Dinner
March 6, 2017**

Thank you, Patricia, for that kind introduction. I would also like to thank Tom and the Satellite Industry Association for inviting me to make remarks at one of the premier communications events of the year. Being the last keynote speaker, as this lovely evening moves along, is a little bit like being asked to sing the Star Spangled Banner: the only thing anyone will remember is if I screw it up.

Before you look to the waiter for more wine or I begin to bore you with the rest of my speech, I thought I’d start with a personal account of my interest in your chosen professions. There are a few in this room who know that standing before you is someone in awe of satellites and the wondrous capabilities that they bring to the globe. Long ago in a different life, I had the choice to delve into any pertinent communications policy area...wireless, wireline, media, etc. And, I consciously chose satellites and begged my boss to put me on the latest project at the time.

The task was to find a path to privatize Intelsat and Inmarsat and do so in a way that neither destroyed their businesses nor allowed the privatized companies to abuse the marketplace going forward. Some of you remember that debate. I became a semi-expert and reveled in satellite life cycles, fueling capabilities, fleet management, orbital arcs, the ITU allotment process and the like. Some geeky stuff. My life was a Big Bang Theory episode. Well, minus the Hollywood stars.

To put it in context, I grew up during the NASA Space Shuttle days and satellite policy represented to me the cross-section of the very reasons I came to Washington. The traditional fight over the proper role of government; fuzzy and cozy international partnerships versus the wave of competition; the science and engineering of launching expensive, sophisticated foil covered electronics into the heavens above; the push to make technology do more than ever imagined; the chance to work on policies not really altered since President Kennedy’s creation. Robert Kennedy said it well, “Satellite communications connect television screens in Japan with television cameras in England, and the distance of half a world loses its meaning.”

Success of U.S. Satellite Industry

You know better than anyone that for the last many years, the satellite industry has been busy innovating, evolving and ensuring its role in the larger communications sector, and part of that has been through diversification. Your services range from audio, video, broadband and navigation to earth observation, scientific and defense functions to assisting schools place CubeSats into orbit for academic research. Some of you provide these services, while others build the satellites and equipment and even launch the rockets that make it all possible.

What is even more inspiring is the leadership role that the U.S. has in this sector and the contributions you make to the American economy. In 2015, U.S. companies accounted for approximately 60 percent of the satellite manufacturing market and 40 percent of both satellite ground equipment and satellite service revenues.¹ In total, the U.S. satellite industry earned almost \$90 billion in revenues,

¹ Satellite Industry Association, *2016 State of the Satellite Industry Report, June 2016*, at 11, 17, 28, <http://www.sia.org/wp-content/uploads/2016/06/SSIR16-Pdf-Copy-for-Website-Compressed.pdf> (SIA Report).

representing 43 percent of the industry.² They also provided approximately 214,000 American jobs.³ And we all know that the statistics for 2016 are likely even better, and hopefully will improve for decades to come.

At the same time, U.S. industry is developing smarter, smaller and higher throughput satellites to decrease costs and increase quality of service, adding constellations to existing networks and replacing legacy satellites, and filing applications for new NGSO systems with plans for thousands of new satellites. Every new project will likely not be a success – that will be left to the market to decide – and there is an inherent risk when you put your work product atop a rocket. I am reminded of Alan Shepard’s quote to Mission Control during a long delay on the launch pad, “Why don’t you fix your little problem and light this candle?”, said Shepard. A candle indeed. I applaud the satellite and larger space industry for their ingenuity and entrepreneurial spirit.

Satellite Broadband Offerings

That same industry, your industry, is focusing a healthy portion of its attention and resources on improving satellite broadband offerings. While currently satellite broadband accounts for approximately \$1.9 billion in revenues and has 1.8 million subscribers, mostly in the U.S., it is an area that has been experiencing 11 percent growth per year.⁴ In the U.S., satellite is well positioned to serve rural and remote areas that are difficult to reach and where the economics for fiber or terrestrial systems do not make sense.

As the Commission looks to improve broadband deployment to these areas, it must consider satellite broadband technologies in its Universal Service Fund (USF) decisions. I was more than disturbed with the Commission’s recent Connect America Phase II decision that sets weights to determine winning bids based on speeds and latency that seem to intentionally favor fiber over wireless and satellite. I suspect that there are some entities in this room that would like us to reconsider the decision, and I would welcome the opportunity. While certain quality and speed goals may make sense, favoring one technology over another or promoting Gigabit speeds to only a few locations does not comply with our obligation to serve as many of the unserved as possible within our budget. Satellite may be the most cost efficient way to provide service to the most rural and remote parts of America, and may be the only sustainable option long term.

More generally, I contend that the Commission should never pick winners and losers based on technology in any of our decisions. Current satellite broadband offerings report speeds up to 25/3 Mbps, but the next generation of satellites is expected to far exceed these levels, making them comparable to terrestrial systems. We must remain technology neutral and keep in mind that as wireline carriers are doing their tech transitions and wireless providers are moving towards 5G networks, the satellite industry is also looking at next-generation systems.

² *Id.* at 6

³ See *Exploring the Value of Spectrum to the U.S. Economy Before the Subcomm. on Communications, Technology, Innovation, and the Internet of the S. Comm. on Commerce, Science, and Transportation* (Mar. 2, 2017) (statement of Tom Stroup, President, Satellite Industry Association), https://www.commerce.senate.gov/public/_cache/files/c25854da-3cd7-4bc8-8acb-e696b9a4e269/C863D2DC79BCE8C48B92DF3043ED97F3.stroup-testimony.pdf; SIA Report at 31.

⁴ SIA Report at 11, 12, 14

Overall Approach & Spectrum Fights

As industries race to compete in the vibrant broadband market, the FCC's role is to ensure that the resources under our control are available for all industry sectors to flourish. I have heard people say that some at the FCC are biased against satellite. As I am sure no one here has ever made that argument, let me be clear that this is certainly not my viewpoint. But, with the wireless and satellite industries competing for valuable spectrum resources, it presents a challenge and sometimes difficult decisions have to be made. I can't promise that I will always agree with your position, but if we are to ever differ, I do promise to always take into account your concerns as best as possible and hope, in turn, you will understand my perspective as well.

For instance, a lot of attention is being paid to the millimeter wave bands. The Commission voted last summer to open the 28, 37, 39 and 64-71 GHz bands for terrestrial use and more bands are currently being considered in the further notice.⁵ I am well aware that this proceeding causes the satellite industry consternation, and to be fair the Commission could have handled this proceeding differently.

In particular, some decisions also seemed to be best guesses and were destined to be raised on reconsideration. Case in point, the earth station siting requirements in 28 and 39 GHz did not make sense when they were adopted.

Also, we should consider as many bands as possible for potential commercial wireless and satellite use, with the understanding that some bands may not be suitable for sharing. This is why, as many of you know, I was disappointed that the 28 GHz band studies were blocked at the last World Radiocommunication Conference (WRC).

World Radiocommunication Conference 2019

Speaking of WRC, my goal is that, in the future, we can work through issues ahead of time, because, in all honesty, identifying spectrum for future wireless and satellite expansion isn't going to get any easier. Here is a predicament, there are separate WRC-19 agenda items that will examine whether terrestrial use is conceivable in a band and explore possible regulatory frameworks for NGSO satellite systems in the same band.⁶ Anyone see a problem? I am sure there are heated debates to come, but studies need to be encouraged, not stymied, to inform how spectrum can be shared and to help regulators – both here and abroad – adopt sound spectrum policy.

Hopefully, improvements will also be made in our preparations for WRC-19. I am working with the Commission's International Bureau and involving myself earlier in this process. For good or bad, you will see more of me at events, including the WRC-19 preparation meetings and hopefully at the 2018 ITU Plenipotentiary in the United Arab Emirates. Going forward, I hope you will bring any issues or suggestions to me and my staff about how the process and substance can be improved.

⁵ *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014 (2016).

⁶ See, e.g., United States of America Draft Preliminary Views for WRC-19, Agenda Item 1.13, https://ecfsapi.fcc.gov/file/101965675702/WAC_013_IWG-2_013r3_AI_1%2013_PV.docx; United States of America Draft Preliminary Views for WRC-19, Agenda Item 1.6, https://ecfsapi.fcc.gov/file/1019698018179/WAC_019_IWG3_009%20AI%201_6%20PV_WAC%20version.docx.

Closing

In my parting moments, I would like to share some insights on what you may see and the interactions you may have with the Commission under new leadership. And, I've got to say what a great feeling it is to be in the majority!

Let me suggest that the future of your companies is in your hands and in the hands of the brilliant people that work with and for you. The new Commission would like – and expects – the private sector to spend more time bringing products and services to market, serving its customers, and less time sitting on the edge of your seats awaiting word from on high, in this case the Commission. That is not to say that the Commission will abandon its responsibilities or obligations. To the contrary, one of our duties is not to interfere in the private, commercial marketplace unless absolutely necessary. We'll still be there to act when appropriate, but we will not actively seek to interfere in your businesses as the all knowing.

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I'll leave you with a related moment in history as told by Newton Minnow. Yes, that Newton Minnow, the former chair of the Commission. Minnow shared the story as follows:

On a visit to the space program, President Kennedy asked me about the satellite. I told him that it would be more important than sending a man into space. "Why?" he asked. "Because," I said, "his satellite will send ideas into space, and ideas last longer than men."

Quite profound at the time and still applicable.

I thank you for listening and look forward to working with all of you on the issues you face. Have a good rest of your night.