



June 20, 2017

The Honorable Marsha Blackburn
Chairman
Subcommittee on Communications and Technology
House Committee on Energy and Commerce

The Honorable Michael Doyle
Ranking Member
Subcommittee on Communications and Technology
House Committee on Energy and Commerce

Re: Defining and Mapping Broadband Coverage in America

Dear Chairman Blackburn and Ranking Member Doyle:

The Satellite Industry Association (SIA)¹ applauds the House Subcommittee on Communications and Technology of the Committee on Energy and Commerce for continuing to address important elements of broadband availability for all Americans. Satellite broadband is an important platform that brings connectivity across the United States and its territories. Ensuring that all competitive broadband platforms are included in broadband mapping will improve the accuracy of the data and help all consumers, regardless of location, know all the competitive options that are available in selecting a broadband provider.

¹ SIA is a U.S.-based trade association representing the leading satellite operators, manufacturers, launch providers, and ground equipment suppliers who serve commercial, civil, and military markets, including broadband services. Since its creation almost twenty years ago, SIA has been the unified voice of the U.S. satellite industry on policy, regulatory, and legislative issues affecting the satellite business. [SIA Executive Members include](#): The Boeing Company; AT&T Services, Inc.; EchoStar Corporation; Intelsat S.A.; Iridium Communications Inc.; Kratos Defense & Security Solutions; Ligado Networks; Lockheed Martin Corporation; Northrop Grumman Corporation; OneWeb; SES Americom, Inc.; Space Exploration Technologies Corp.; SSL; and ViaSat, Inc. [SIA Associate Members include](#): ABS US Corp.; Artel, LLC; Blue Origin; DigitalGlobe Inc.; DRS Technologies, Inc.; Eutelsat America Corp.; Global Eagle Entertainment; Glowlink Communications Technology, Inc.; Hughes; Inmarsat, Inc.; Kymeta Corporation; L-3 Electron Technologies, Inc.; O3b Limited; Panasonic Avionics Corporation; Planet; Semper Fortis Solutions; Spire Global Inc.; TeleCommunication Systems, Inc.; Telesat Canada; TrustComm, Inc.; Ultisat, Inc.; and XTAR, LLC.

Accurate data regarding broadband availability across the nation is also important to inform future public policy aimed to address broadband gaps in unserved areas across the nation. SIA supports funding to improve broadband mapping, however, such activities should not delay the prompt implementation of Universal Service Fund or other federal funding programs aimed to get broadband service to unserved citizens across the nation.

Because of wide coverage of satellite broadband services today, all of the continental United States, including millions of consumers without terrestrial broadband, have an available high-speed broadband service². Satellite broadband consumers are able to receive speeds that meet and exceed FCC-defined broadband speed of 25 MBps download/3 MBps upload (25 Mbps/3 Mbps). Today, approximately 1.7 million consumers in the United States and its territories, in both rural and populated areas, subscribe to satellite-delivered broadband services.

Satellite broadband is also available at speeds at or above 25/3 MBps on mobile platforms, to enterprise and government customers, and as internet back-haul services. With the launch and deployment of two new multiple high throughput, high speed broadband satellites this year with more underway, plus future plans for non-geostationary satellite (“NGSO”) constellations for low-latency broadband, U.S. consumers will have ever-increasing choice in receiving satellite broadband services, no matter where they are. Accordingly, it is critical that satellite be included in any mapping of broadband services available in the United States today and in the future.

The Benefits of Satellite Broadband Services

As Congress develops its broadband mapping, it should consider the many positive attributes of satellite broadband. These include, but are not limited to:

1. **Competition:** Just as it has with radio and television services in the past, satellite broadband provides market-based competition to terrestrial services. When provided with a level playing field, satellite broadband brings additional package options, pricing, and innovative services to consumers in the United States, often in areas with only a single or low number of providers.
2. **Wide Geographic Coverage:** To address the digital divide, broadband services need to be available for the most rural and remote areas of the country. The nature of satellite's wide coverage ensures that all communities within the satellite's footprint receive the same quality of service, whether they are remote communities or big cities, when given the same incentives as terrestrial

² 2016 Broadband Progress Report, FCC. <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report>

- providers. Further, satellite coverage has the advantage of having a geographically independent cost structure, when incentivized, making it particularly well suited to serve a large number of high-cost, low-density areas, where the build out of terrestrial infrastructure would not make economic sense.
3. **Availability:** Unlike terrestrial broadband, satellite broadband is available today across a significant portion of the United States without the build out of additional infrastructure. When incentives are provided on a technology neutral basis, a customer can obtain satellite broadband services by simply ordering and awaiting at-home installation. Accordingly, unlike with respect to terrestrial broadband, no long-term build out is required of satellite broadband.
 4. **Cost-efficiency:** Because satellite systems have inherently wide-area coverage, when technology neutral incentives are made to encourage capacity redirection, there is no additional cost to build out to rural and remote areas, only lost opportunity costs in more lucrative service areas. This is unlike terrestrial services, where the low density of rural and remote areas makes it costlier and in most cases, not economically viable, to build out and cover these areas.
 5. **Reliability:** Natural and manmade disasters can result in the interruption of terrestrial broadband services. Satellites, however, are less affected by these events where satellite ground systems or satellite-enabled airborne equipment can be quickly deployed to restore connectivity. Additionally, some satellites serve as a router in the sky, independently switching to provide connectivity to the end user without additional deployed equipment. This level of reliability is often sought by government and businesses alike to ensure continuity and a rapid response.

Defining Broadband and Ensuring an Accurate National Broadband Map

There are no real limitations on what broadband can become and, therefore, it is better to avoid rigid definitions. Rather, it is more appropriate to define broadband in terms of evolving performance characteristics, based on the technologies and applications that consumers want and use, not fixed “top down” performance definitions. In the past, there has been a singular focus on “speed” as the sole factor that should define broadband (e.g., Gigabit service). While this may be important for some applications, it may not be necessary at arbitrary levels for all essential applications or on all devices. Different speeds may be more suitable to different types of applications.

Other factors such as differentiated service or pricing models, data caps, service availability, jitter, bursting, symmetry, latency, mobility and portability may emerge to play a role in consumer broadband choice and requirements. Given a competitive market, those

solutions that are most responsive to consumer needs and preferences should succeed, while those that do not respond to such needs and preferences are likely to fail. Technology neutrality is especially important in addressing today's expectation of being connected everywhere. Satellite mobility applications now reach Americans not just in underserved areas, but allow them to stay connected while on airplanes, on vessels, and in transit to remote locations.

SIA supports continued funding to keep up to date the National Broadband Map. SIA urges that any such mapping include all platforms for broadband connectivity to ensure accuracy and consumer understanding of available options, particularly in unserved and underserved areas. A technology neutral approach to the National Broadband Map is needed to ensure that government is not tipping the scale in favor of one service over another, thereby limiting consumer choice of all broadband options.

Conclusion

Satellite broadband services are and will continue to be a critical piece of the competitive broadband services competitive landscape. As Congress considers how to best develop its National Broadband Mapping system, it must capture satellite broadband in its analysis. Failure to do so will deny American systems access to the high-quality, advanced, cost-available broadband services that are available via satellite today without waiting years to build out, and underrepresent the advances already underway in ongoing satellite broadband technology innovation.

The Satellite Industry Association stands ready to provide additional information as necessary and thanks the Subcommittee for advancing the topic of broadband connectivity and the National Broadband Map through this hearing.

Sincerely,

/s/

Tom Stroup

President

Satellite Industry Association