Department of Commerce

National Telecommunications

and Information Administration

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| Request for CommentInfrastructure Investment and Jobs Act Implementation  | )))) | Docket No. NTIA-2021-0002 |
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Comments by the Aerospace Industries Association

The Aerospace Industries Association (AIA) represents over 300 companies and nearly 2 million U.S. workers across the aerospace industry, from satellite communications companies, to launch providers, to space systems manufacturers and suppliers. AIA submits these comments in response to the National Telecommunications and Information Administration’s (NTIA) Request for Comment on the administration and implementation of The Broadband Equity, Access, and Deployment (BEAD) program, the Middle-Mile Broadband Infrastructure Program, and the Digital Equity Grant Program under the Infrastructure Investment and Jobs Act of 2021 (“Bipartisan Infrastructure Law”).

The most timely, efficient, and cost-effective means of achieving NTIA’s statutorily-required broadband access and affordability goals is to include and encourage the use of all technologies – including satellite technologies. NTIA guidance supporting the inclusion of satellite broadband services would provide:

**Near Immediate Deployment** – Satellite broadband operators serve over 2 million customers across the United States, including in rural and otherwise unserved regions. With Bipartisan Infrastructure Law funding, satellite broadband services can be expanded to unserved and underserved areas nearly immediately and cost-effectively using existing satellite capabilities or in the near term with planned additional capacity. Additionally, provision of these services requires minimal new ground-based infrastructure and minimal ongoing maintenance.

**Enabling Consumer Choice** – Satellite broadband services offer consumers a cost-effective high-speed broadband internet connection powerful enough to enable increasingly critical applications, including telehealth, remote work, and remote learning. By adopting competitively and technologically-neutral program rules and defining service quality metrics in a broad and inclusive manner, NTIA can ensure that consumers are free to choose the broadband service that best meets their needs, including satellite broadband.

**Resilient Architecture** – With limited, easily adjusted ground infrastructure, satellite broadband services provide additional resiliency to climate and natural disaster impacts as well as changes in service location needs. In fact, satellite broadband services are used today as an immediate means of connectivity to areas, for example, struck by natural disaster.

**U.S. Economic Benefits** – Satellite broadband services support hundreds of thousands of high-paying, innovation-driven jobs across the United States, from engineers and scientists to highly skilled technicians and trades workers. Inclusion of satellite broadband services in these programs will support the continued U.S. leadership in satellite communications, launch services, and space systems manufacturing and positively impact the health of the U.S. aerospace industrial base. Moreover, limits on satellite participation will benefit non-U.S. competitors and encourage increased international investment outside of the U.S, presenting a risk to the growing U.S. space industry. Satellite broadband also provides Americans in rural and remote locations with the opportunity to seek and obtain high-quality jobs that rely on access to a high-speed internet connection.

Additional comments in responses to NTIA’s specific requests for information are provided below.

**1. What are the most important steps NTIA can take to ensure that the Bipartisan Infrastructure Law’s broadband programs meet their goals with respect to access, adoption, affordability, digital equity, and digital inclusion?**

Meeting the Bipartisan Infrastructure Law’s goals with respect to access, adoption, affordability, digital equity, and digital inclusion will require rules and guidelines for the BEAD program that leverage the capabilities and potential contributions of a wide variety of service providers—including satellite operators. As described above, satellite service providers offer unique speed of deployment and resiliency benefits. In order to take advantages of these attributes, BEAD program rules should be technologically-neutral, to ensure a level playing field for competitive solutions. Limiting participation to only certain types of service providers or technologies would eliminate these advantages and skew global market dynamics away from the growing U.S. satellite and space sector.

**2. Obtaining stakeholder input is critical to the success of this effort. How best can NTIA ensure that all voices and perspectives are heard and brought to bear on questions relating to the Bipartisan Infrastructure Law’s broadband programs? Are there steps NTIA can and should take beyond those described above?**

NTIA should facilitate an open, transparent, and *ongoing* process through which stakeholders can provide input and feedback with respect to key policy matters. This opportunity to comment should be the beginning of that process. In addition, NTIA should ensure that State and local policymakers implement similar processes to solicit public input in an open and transparent manner.

**6. The Bipartisan Infrastructure Law requires states and territories to competitively select subgrantees to deploy broadband, carry out digital equity programs, and accomplish other tasks. How should NTIA assess a particular state or territory’s subgrant award process? What criteria, if any, should NTIA apply to evaluate such processes? What process steps, if any, should NTIA require (e.g., Request for Proposal)? Are there specific types of competitive subgrant processes that should be presumed eligible (e.g., publicly released requests for proposals and reverse auctions)?**

AIA encourages NTIA to ensure that States use objective and transparent standards and procedures when awarding grants in the subgrant process and ensure all interested parties can provide input during the process. State processes should include issuance of public announcements about when applicants may apply for subgrants and seek public requests for proposals from potential applicants, including on what criteria the State should use when evaluating applications. Furthermore, the subgrant award process should be evaluated for each State based on how well the process promotes competition. The Bipartisan Infrastructure Law requires States to “competitively” award grants to applicants, which cannot be accomplished if some technologies are excluded from consideration. States should be encouraged to take a holistic approach to reviewing applications, focusing beyond speed and latency to include meaningful criteria, such as time to deploy, consumer needs, and service affordability.

**8. States and regions across the country face a variety of barriers to achieving the goal of**

**universal, affordable, reliable, high-speed broadband and broadband needs, which vary**

**from place to place. These challenges range from economic and financial circumstances to**

**unique geographic conditions, topologies, or other challenges that will impact the**

**likelihood of success of this program. In implementing the Bipartisan Infrastructure Law’s**

**broadband programs, how can NTIA best address such circumstances?**

Addressing these challenges across the States is best met by a set of rules that encourages Statesto assess multiple technologies to meet program goals and that do not adopt performance requirements above the minimums set forth in the Bipartisan Infrastructure Law. States and local entities possess a better understanding regarding which technologies will address the challenges and needs of their communities than could be accomplished with a one-size fits all national standard. More strict performance requirements above the minimums set forth in the Bipartisan Infrastructure Law would eliminate States’ choices when selecting broadband services, reduce competition, and may limit the options available to meet these challenges most rapidly and cost effectively.

**11.** **One** **objective of the Bipartisan Infrastructure Law is to ensure American workers have**

**access to high quality jobs, especially those who were impacted the most by the pandemic,**

**including women and people of color. What federal policy tools can NTIA apply to help**

**ensure that broadband funding is deployed in a way that maximizes the creation of good**

**paying jobs and that women and people of color have full opportunity to secure those jobs.**

With rules that support multiple technologies, NTIA will support jobs across innovation-driven, technology sectors. Satellite broadband services support hundreds of thousands of high-paying, innovation-driven jobs across the United States, from engineers and scientists to highly skilled technicians and trades workers. Satellite broadband services inclusion in these programs will support the continued U.S. leadership in satellite communications, launch services, and space systems manufacturing, and positively impact the health of the U.S. aerospace industrial base. Moreover, limits on U.S. satellite broadband technologies inclusion will benefit non-U.S. competitors and encourage increased international investment outside of the U.S., presenting a risk to the growing U.S. space industry. Satellite broadband services also provide Americans in rural and remote locations with the opportunity to seek and obtain high-quality jobs that rely on access to a high-speed internet connection.

**12. What steps, if any, should NTIA take to ensure maximum use of American-made**

**network components and that supply shortages are addressed in ways that create high quality jobs for all Americans? What impact, if any, will application of the “Buy American” requirements in the Bipartisan Infrastructure Law have on supply-chain and workforce challenges and on the speed with which the nation can reach the goal of 100% broadband connectivity?**

Through the promotion of a variety of effective technologies for broadband deployment, NTIA will support the overall U.S. technology sectors and manufacturing supply chain. Satellite service providers are supported by a broader aerospace supply chain that also supports our national security and civil government space activities. As discussed above, the satellite industry is a globally competitive one. Limits on satellite broadband services participation will benefit non-U.S. competitors and encourage increased international investment outside of the U.S., presenting a risk to the growing U.S. space industry.

**13. NTIA is committed to ensuring that networks built using taxpayer funds are capable**

**of meeting Americans’ evolving digital needs, including broadband speeds and other essential network features. What guidance or requirements, if any, should NTIA consider with respect to network reliability and availability, cybersecurity, resiliency, latency, or other service quality features and metrics? What criteria should NTIA establish to assess grant recipients’ plans to ensure that service providers maintain and/or exceed thresholds for reliability, quality of service, sustainability, upgradability, and other required service characteristics?**

NTIA should define service quality metrics used in connection with the BEAD program in a broad and inclusive manner. NTIA should ensure any metrics that are relevant to the end-user experience, are defined based on actual data with respect to the impact of that metric on the end-user experience, and remain focused on whether a given service offering is capable of providing a quality end-user experience. These metrics should be flexible enough to allow consumers to evaluate a wide range of potential service options and then choose the options that best meet their needs. NTIA should exercise caution in attempting to define “quality” broadband from the top-down. Metrics should be defined in a competitively and technologically inclusive manner and NTIA should not adopt requirements that would limit the ability of service providers to leverage any given technology or business model that might effectively address consumer needs.

**18. The Bipartisan Infrastructure Law provides that BEAD funding can be used in a**

**variety of specific ways, including the provision of service to unserved and underserved areas, connection of community anchor institutions, data collection, installation of service within multi-family residential buildings, and broadband adoption programs. The law also permits the Assistant Secretary to designate other eligible uses that facilitate the program’s goals. What additional uses, if any, should NTIA deem eligible for BEAD funding?**

Programs that promote network diversity and resiliency should be deemed as eligible for funding. Given the goal of connecting all Americans, this should take into account the potential for service disruption or outages due to natural disasters or other disruptions. Satellite broadband service is a critical technology during natural disasters when terrestrial services might not be available and plays an important role is resiliency planning by local and federal agencies such as the Federal Emergency Management Agency (FEMA). While BEAD is currently for consumer broadband deployment, allowing States to offer grants for the purpose of network diversity and resiliency protects broadband connection for Americans aligned with BEAD’s goals

**20. When formulating state broadband plans, what state agencies or stakeholder groups**

**should be considered in the development of those plans?**

As previously answered under question 6, States should utilize transparent procedures so that all interested stakeholders can provide meaningful input during the application process. States should be required to issue public announcements about when applicants may apply for subgrants and seek public requests for proposals from potential applicants, including what criteria the State should use when evaluating applications. This will provide the States with the information they need to make informed decisions on which technologies are best suited for their respective goals. Additionally, States should be required to consult with relevant emergency response and disaster recovery agencies to ensure broadband networks are designed with network resiliency in mind, including investments in satellite infrastructure among other network resiliency components.