

**Before the
UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
and the
UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE**

In the Matter of:)	
)	
American Recovery and Reinvestment Act of)	Docket No. 090309298-9299-01
2009 Broadband Initiatives Joint Request for)	
Information)	
)	

COMMENTS OF THE MSS & ATC COALITION

Summary

The MSS & ATC Coalition urges the NTIA and RUS, in their implementation of the Recovery Act broadband funding programs, to consider the unique features of MSS/ATC Networks that enable these networks to provide broadband service to unserved and underserved areas.

The Coalition urges the NTIA to define “broadband” in a contextual and evolving manner, rather than relying on a single Mbps-based definition of broadband that will soon be out of date and that fails to reflect the current and projected variety of broadband end-user needs and expectations. To many users mobility is more important than speed. The Coalition agrees with the Satellite Industry Association that those areas in which the adoption rate is in the lowest one-third of the nation should be considered “unserved,” and those areas in which the adoption rate is in the middle one-third of the nation should be considered “underserved.”

The RUS should not disfavor proposals by satellite providers simply because their networks are capable of serving areas that are already well-served, because satellites are often the only viable technology for bringing service to the most rural regions of the nation.

The NTIA’s rules should permit support for projects that benefit users nationwide, including satellite projects. The NTIA should also give due consideration to grant applications that would enable public safety networks and devices to interoperate with each other and to access and interoperate with MSS/ATC Networks.

In determining which projects would represent the most efficient use of public funds, the NTIA and the RUS should count the population served by a project based on the number of potential users (whether consumers, businesses, public safety agencies, or others) to whom the proposed service would be available.

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COMMENTS OF THE MSS & ATC COALITION

The MSS & ATC Coalition (the “Coalition”)¹ urges the National Telecommunications and Information Agency (“NTIA”) to consider the unique capabilities that make MSS/ATC networks, as described below, especially well-suited to providing mobile broadband service to unserved and underserved areas and to public safety agencies both regionally and nationwide in defining key terms in the Broadband Technology Opportunity Program (“BTOP”) grant program.² In setting the BTOP requirements, NTIA should (1) consider the significant benefits and distinct attributes of mobile broadband, (2) determine that the coverage area of a mobile service is at least as important as its nominal speeds, and (3) give proper weight to public safety grant applications that advance national public safety broadband network policy

¹ ATC Coalition members are Globalstar, Inc., ICO Global Communications, Inmarsat Inc., SkyTerra Communications, Inc., and TerreStar Networks Inc.

² The American Recovery and Reinvestment Act of 2009 (“Recovery Act”) directs the NTIA, in consultation with the Federal Communications Commission (“FCC”), to establish BTOP, a national broadband service development and expansion program. Pub. L. No. 111-5, 123 Stat. 115 (2009) (“Recovery Act”); *see also* Conf. Rep. 111-16, at 776. The Recovery Act also establishes authority for RUS to make grants and loans for the deployment and construction of broadband systems. The provisions regarding the RUS Recovery Act broadband grant and loan activities are found in Division A, Title I under the heading “Rural Utilities Service, Distance Learning, Telemedicine and Broadband Program of the Recovery Act” (the “RUS Broadband Program”). The NTIA and RUS have jointly requested comments. Joint Request for Information and Notice of Public Meetings, 74 Fed. Reg. 10,716-21 (Dep’t of Commerce Mar. 12, 2009) (the “Joint Request”).

objectives. Both RUS and NTIA should also explicitly find that projects that deploy dual-mode satellite/terrestrial mobile devices are eligible for Recovery Act funding assistance.

Background

Coalition members have invested hundreds of millions of dollars into planning, designing, and constructing next generation integrated satellite-terrestrial networks (“MSS/ATC Networks”). These networks integrate three elements to provide mobile broadband services that are ubiquitous, durable, and expandable. First, next-generation MSS satellites will provide high-availability service to mobile devices throughout the United States, ensuring that service is available in essentially all rural areas. Second, ATC base stations re-use satellite spectrum, extending capacity in high-demand areas and ensuring satellite capacity for users beyond the reach of terrestrial networks. And third, dual-mode satellite/terrestrial devices access the satellite and ATC base stations, enabling ubiquitous service availability and maximizing spectrum efficiency. MSS/ATC operators and their suppliers have undertaken pioneering work to ensure that dual-mode satellite/terrestrial capability can be included in devices with the same form factor as terrestrial-only devices, and at comparable cost. MSS capability can also be included in devices that access other commercial or public safety networks to provide emergency or “last resort” links when those networks are unavailable.

The combination of MSS/ATC Networks and dual-mode devices can bring fundamental improvements to mobile communications, especially in rural areas. Consumers, businesses, governments, and public safety agencies will be able to purchase small devices that will work virtually anywhere, anytime, regardless of conditions on the ground. Consumers in remote areas will never be “out-of-range” and first responders will know that their devices and

critical applications will work anywhere, anytime. A satellite system can serve an entire continent, aggregating demand from rural areas that cannot economically support any terrestrial communications infrastructure.³ The FCC has recognized the power of this technology, finding that distance-insensitive satellites will promote rural broadband deployment because satellites are especially well suited to serving rural and unserved areas.⁴

Discussion

A. The definition of “broadband”

Congress expressly states that providing access to broadband service for consumers residing in unserved areas, and providing improved access to consumers residing in underserved areas, are key purposes of the \$4.7 billion BTOP.⁵ Similarly, Congress established the RUS Broadband Program to provide grants, loans, and loan guarantees for projects serving areas without sufficient access to high speed broadband service.⁶ The definitions of “broadband,” “unserved,” and “underserved” are critically important because they will guide billions of dollars of public and private investment.

The purpose of the grant program is to increase the availability of broadband services to unserved and underserved areas. NTIA and RUS should define these terms in a manner that serves the consumers and public safety entities that currently lack broadband access – and not exclude important consumers and first responders by adopting an overly rigid definition based solely on geography. The market for these services will be highly fragmented, and it would be

³ *Use of Returned Spectrum in the 2 GHz Mobile Satellite Service Frequency Bands*, Order, 20 FCC Rcd 19696, ¶ 30 (2005) (“2 GHz Returned Spectrum Order”). Today’s cellular networks only must build out 10% of the U.S. landmass in order to achieve coverage of 90% of the population. Dale Hatfield and Phil Weiser, *Toward a Next Generation Strategy: Learning from Katrina and Taking Advantage of New Technologies*, at 7 (2005) (available at www.skyterra.com/docs/papers/NextGenOct21R2.pdf).

⁴ *2 GHz Returned Spectrum Order*, 20 FCC Rcd 19696 at ¶ 45.

⁵ Recovery Act § 6001(b)(1) and (2).

⁶ Recovery Act, Division A, Title I.

a grave mistake to force consumers to pay for more capacity or greater data speed than they require for their particular business or personal purposes. Accordingly, the Coalition proposes that “broadband” be defined in a contextual and evolving manner. NTIA and RUS should avoid choosing a single Mbps-based definition of broadband that will soon be out of date and that fails to reflect the current and projected variety of broadband end-user needs and expectations. Thus, no specific speeds should be required for service. The definition should be flexible enough to encompass services and projects that will serve the public most effectively.

NTIA and RUS should recognize that consumers, businesses, and public safety agencies in rural areas need access to mobile broadband service. Consumers in rural areas often traverse great distances in their day-to-day activities. Rural workers, including farmers, ranchers, first responders, and others, may work predominantly in vehicles or outdoors. For these users, broadband service to a fixed location, regardless of speed, will not meet the need for mobile data access.

NTIA and RUS should acknowledge that fixed and mobile services have different service characteristics and cannot be directly compared with each other. Comparisons between mobile broadband proposals must consider both data speeds and coverage area.⁷ For residents of rural areas and other users (including first responders) who travel to areas beyond population centers and major traffic arteries, seamless and reliable wide-area coverage can be

⁷ The FCC has recognized that fixed broadband and terrestrial mobile broadband are different services that must be analyzed according to different criteria. In its order adopting the new Form 477 the FCC established different reporting criteria for fixed broadband services (wired, terrestrial fixed wireless, and satellite broadband) and terrestrial mobile wireless broadband services. *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriber Data, and Development of Data on Interconnected Voice Over Internet Protocol (VoIP) Subscriber Data*, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 9691 (rel. June 12, 2008) at ¶¶ 10, 16. (the “Form 477 Order”).

far more valuable than a faster service that is available in only limited areas. NTIA and RUS should reject calls to establish arbitrary speed thresholds as minimum criteria for “broadband” and instead should recognize qualitative differences among services that meet the different requirements of different rural users.

B. The definitions of “unserved area” and “underserved area”

Congress has expressed its intent to facilitate access to broadband service to unserved areas. The Coalition agrees with the Satellite Industry Association that those areas in which the adoption rate is in the lowest one-third of the nation should be considered “unserved,” and those areas in which the adoption rate is in the middle one-third of the nation should be considered “underserved.” The necessary data is readily available as the FCC has been collecting such data through its Form 477 process.

The Coalition notes that the Recovery Act requires that at least 75% percent of the area to be served by a project receiving funds must be rural and without sufficient access to broadband service. RUS should not penalize satellite providers simply because their networks serve not only the most rural and unserved regions of the nation, but also provide service to areas that are already well-served. Satellites are often the fastest way or the only way to bring service to the most isolated rural areas, and the RUS should clarify that proposals to serve rural areas using satellite infrastructure are eligible for RUS financial support.

C. Role of the states

The states, of course, have a very important role to play in the grant program, but NTIA should take care not to craft rules that prevent private entities from applying on their own or in partnership with other private companies to offer innovative solutions to expanding

the provision of broadband services. Moreover, there should be no requirement that project proposals must be located in particular states and have state approval in order for the application to be granted. Such a requirement would disadvantage satellite providers, whose coverage is national in scope. The NTIA's rules should ensure flexibility to allow, for example, that some grant support is available for projects that benefit users nationwide, including satellite projects.

D. The importance of public safety communications

Congress also intends for the BTOP to “improve access to, and use of, broadband service by public safety agencies”⁸ The FCC has long recognized the need for a nationwide, interoperable, mobile broadband public safety network. Over the past two years, the Commission has developed an extensive record that reflects the special requirements of broadband networks used by public safety entities and first responders.⁹ It is appropriate for the NTIA to draw upon this extensive record in reviewing grant applications that propose to provide access to and use of broadband service by public safety agencies. Grants for broadband projects that include service to public safety should promote seamless coverage, nationwide interoperability, and sufficient resiliency to survive disasters that would disable or destroy terrestrial communications networks. Grant applications that would enable public

⁸ Recovery Act § 6001(b)(4).

⁹ See, e.g., *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, *Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, WT Docket 03-264, *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 06-169, *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, *Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket No. 07-166, 22 FCC Rcd 15289, ¶ 463-64 (2007) (“700 MHz Second Report and Order”).

safety networks and devices to interoperate with each other and to access and interoperate with MSS/ATC Networks should be given due consideration.

E. Funding efficiency

NTIA and RUS will need to identify those projects that reflect the best investment of public resources. Determining the number of users that benefit from each project will be a crucial element of that analysis. In conducting this analysis, NTIA and RUS should count the population served by a project based on the number of potential users (whether consumers, businesses, public safety agencies, or others) to whom the proposed service would be available. All service providers, regardless of the technology employed, should be able to count all homes and businesses passed and to which service will be made available. This reasonable approach is consistent with the NTIA's view that BTOP funds should be applied to projects that offer "credible, functional and scalable models for accelerating the deployment of broadband."¹⁰

F. Dual-mode satellite-terrestrial devices

For the reasons discussed above, the NTIA should assure that BTOP funding may be used to facilitate deployment of dual-mode satellite-terrestrial networks to take advantage of ubiquitous mobile broadband coverage. The NTIA should also give weight to proposals for the deployment of dual-mode satellite-terrestrial devices to consumers, community institutions, and public safety agencies. This is because, together, MSS/ATC Networks and dual-mode mobile devices advance all five express purposes of the BTOP:

¹⁰ Testimony of Mark G. Seifert, Senior Advisor to the Assistant Secretary, NTIA, before Subcommittee on Communications, Technology, and the Internet, Committee on Energy and Commerce, U.S. House of Representatives, Hearing on "Oversight of the American Recovery and Reinvestment Act of 2009: Broadband," April 2, 2009.

- They provide access to broadband service to consumers residing in unserved areas;¹¹
- They provide improved access to consumers residing in underserved areas, because they enable seamless coverage throughout rural areas that may be served by terrestrial links only in some areas;¹²
- They provide access to community support organizations;¹³
- They will improve access to and use of broadband service by public safety agencies, because MSS/ATC Networks uniquely offer the resiliency, interoperability, and ubiquitous coverage that are critical to first responders;¹⁴ and
- They will stimulate demand for broadband and result in economic growth and job creation because they will extend mobile broadband access, services, and applications into areas that otherwise cannot be served. Increased coverage and reliability will drive demand. The ability to access mobile broadband links anytime, anywhere will drive the development and use of new features and applications that assume “always on” availability by mobile devices.¹⁵

Accordingly, the NTIA funding should favor projects that propose development and use of dual-mode mobile devices.

The RUS should likewise recognize that dual-mode devices are essential elements of MSS/ATC network infrastructure and should provide grants, loans, and loan guarantees supporting the purchase of dual-mode devices by rural users. While satellites themselves can serve rural, urban, and suburban areas alike, from the user’s perspective the service is provided entirely at the point of the user terminal. It is not the location of the service provider infrastructure, but the location of the consumer that matters. The intent of the RUS Broadband Program is to fund infrastructure that will provide service in rural areas, not simply to fund

¹¹ Recovery Act § 6001(b)(1).

¹² Recovery Act § 6001(b)(2).

¹³ Recovery Act § 6001(b)(3).

¹⁴ Recovery Act § 6001(b)(4). The FCC has recognized the value of dual-mode satellite-terrestrial devices for first responders, and the NTIA should promote deployment of dual-mode devices. *See 700 MHz Second Report and Order* at 15434 (requiring the D Block licensee to “make available to the Public Safety Broadband Licensee at least one handset that would . . . include an integrated satellite solution capable of operating both on the 700 MHz public safety spectrum and on satellite frequencies”).

¹⁵ Recovery Act § 6001(b)(5).

infrastructure in rural areas. Dual-mode devices extend mobile broadband service into areas that are unserved by terrestrial-only devices and are critical elements of rural broadband service. They are essential elements of rural broadband infrastructure and should be fully eligible for RUS funding under the Recovery Act.

Respectfully submitted,

THE MSS & ATC COALITION

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