Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz	)	ET Docket No. 10-142

COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®

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CTIA – The Wireless Association® ("CTIA") respectfully submits these comments in response to the Commission's Notice of Proposed Rulemaking and Notice of Inquiry (individually, "MSS NPRM" and "MSS NOI" and collectively, the "*Notice*"), which aims to make additional spectrum available for mobile broadband use by promoting flexible use and removing barriers to investment.[1] CTIA has long been an advocate of the Commission's efforts to make additional spectrum available for mobile broadband, and the explosive and ongoing growth of mobile broadband makes initiatives such as those proposed in the *Notice* essential to America's continued wireless leadership. Thus, CTIA encourages the Commission to adopt its proposals to establish primary Fixed and Mobile allocations for the 2000-2020 MHz and 2180-2200 MHz bands and to apply its secondary market rules to Mobile Satellite Service ("MSS") spectrum. CTIA also urges the Commission to develop a comprehensive plan for reallocating 2 GHz MSS spectrum to terrestrial mobile broadband use, and to explore alternatives, including

[1] *Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz*, Notice of Proposed Rulemaking and Notice of Inquiry, FCC 10-126 (July 15, 2010) ("*MSS Notice*"). *See also* News Release, Federal Communications Commission, FCC Begins Proceeding to Spur Mobile Broadband Investment in MSS Bands, ET Docket No. 10-142 (July 15, 2010) ("MSS Notice News Release"), *available at* http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db0715/DOC-299795A1.pdf.

incentive auctions, for bringing this spectrum to market in a manner that balances public interest considerations concerning unjust enrichment alongside the critical need for mobile broadband spectrum.

I. INTRODUCTION

The Commission's Notice correctly recognizes that "tremendous demand growth" for mobile broadband "will soon test the limits of spectrum availability."[2] It is well-established that the allocation of additional spectrum for mobile broadband services is key to America's continued technology leadership. The Commission's effort to make additional spectrum available for mobile broadband through removing regulatory barriers to terrestrial use of MSS spectrum is an important step toward achieving the objectives of the National Broadband Plan. CTIA therefore commends the Commission for initiating this proceeding.

Prior Commission proceedings have underscored the importance of identifying additional spectrum for mobile broadband and the ideal characteristics that such spectrum would have. MSS spectrum in general and the 2 GHz MSS spectrum in particular is ideally suited for terrestrial mobile broadband services. The Commission's National Broadband Plan proceedings highlighted the ideal characteristics of spectrum for mobile broadband: spectrum bands below 3 GHz are the most desirable for mobile broadband because of their propagation characteristics,[3]

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[2] *MSS Notice* at ¶ 1.

[3] *Federal Operations in the 1755-1850 MHz Band: The Potential for Accommodating Third Generation Mobile Systems*, Interim Report, U.S. Department of Commerce at 7 (rel. Nov. 15, 2000) ("NTIA Interim Report"), *available at* http://www.ntia.doc.gov/osmhome/reports/imt2000/imt2000.pdf (explaining that the physical processes governing the propagation of radio waves in the frequency range below 3 GHz let them be efficiently transmitted and received by small user devices and give them the ability to support high data rates, making them ideal for mobile telecommunications uses).

large continuous blocks of spectrum best enable next-generation network standards,[4] international harmonization will lower equipment costs and enable innovation,[5] and proximity to existing mobile broadband spectrum facilitates the development of mobile equipment.[6] MSS spectrum has all of these characteristics and is thus ideally suited for terrestrial mobile broadband use. In particular, the 2 GHz MSS spectrum is adjacent to spectrum licensed to the Personal Communications Service ("PCS") and Advanced Wireless Service ("AWS").[7] In light of the urgent need for additional spectrum for mobile broadband, CTIA strongly supports the Commission's identification of MSS spectrum for terrestrial wireless use. CTIA encourages the Commission to continue to assess the amount of spectrum allocated to mobile satellite providers, whether these providers are fully and efficiently using their spectrum authorizations, and whether this spectrum can be reallocated to terrestrial uses.

In the MSS NPRM, the Commission proposes to adopt primary Fixed and Mobile allocations for the 2000-2020 MHz and 2180-2200 MHz bands. CTIA supports this allocation,

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4 *Mobile Broadband Spectrum Demand*; Comments of 3G Americas—NBP Public Notice #6, GN Docket No. 09-51, at 8 (Oct. 23, 2009) ("[S]pectrum allocated for commercial mobile broadband should be as contiguous as possible. Current allocations are primarily based on 5 and 10 MHz blocks. Such allocations may have been appropriate for second, and even third, generation data services, but they are not sufficient to support advanced data services. Wider bandwidth allocations are better suited for future, data-intensive wireless broadband services.").

5 T-Mobile NBP PN #6 Comments at 16 ("The spectrum identified should be in blocks that are largely contiguous and globally harmonized to the extent possible, in order to permit greater efficiencies in the production of mobile devices and equipment, with corresponding savings for U.S. mobile users."); Motorola NBP PN #6 Comments at 10 ("When possible, harmonization with global allocations should be a goal to drive equipment costs downward and to facilitate roaming on a regional and global basis. Harmonization will help drive investment in technologies and services and will result in lower costs due to economies of scale in the global market.").

6 CTIA NBP PN #6 Comments at 10.

7 The PCS upper band ends at 1995 MHz (if the G Block is included) and should the PCS H Block proceeding be completed, PCS will extend to 2000 MHz. The lower 2 GHz MSS spectrum block is from 2000 to 2020 MHz. The AWS upper band runs from 2110 to 2155 MHz. The AWS-2 and AWS-3 spectrum, which do not yet have service rules completed, extends from 2155 to 2180 MHz. The upper 2 GHz MSS spectrum band extends from 2180 to 2200 MHz.

as it would be a logical first step toward making this spectrum available for terrestrial mobile broadband use. CTIA also encourages the Commission to adopt its proposal to apply its secondary market rules to MSS spectrum, as these policies have yielded considerable public benefits in other bands.

CTIA further commends the Commission's efforts in the MSS NOI to reallocate 2 GHz MSS spectrum for terrestrial mobile services, and encourages the Commission to explore alternatives that would enable this spectrum to be put to its highest and best use. By taking this action in connection with a comprehensives spectrum plan, the Commission will achieve the objectives of the National Broadband Plan and promote the continued success of wireless broadband.

II. CTIA STRONGLY SUPPORTS THE COMMISSION'S EFFORT TO IDENTIFY AND ALLOCATE ADDITIONAL SPECTRUM FOR MOBILE BROADBAND SERVICES

Mobile broadband "is emerging as one of America's most dynamic, innovative and economically viable communications platforms."[8] Because of this fact, and because of the staggering growth of mobile broadband, CTIA agrees with the National Broadband Plan's finding that significant amounts of additional spectrum are necessary for the United States to "keep[] pace with the global wireless revolution," and that a failure to allocate more spectrum for mobile broadband could result in "higher prices, poorer service, lost productivity, loss of competitive advantage and untapped innovation."[9] The FCC has previously found that "[t]he MSS allocation consists of a significant amount of bandwidth with propagation characteristics suitable for mobile broadband," and allocation of MSS spectrum for mobile broadband enjoys

[8] MSS Notice News Release at 1.

[9] Connecting America: The National Broadband Plan at 84-85 (2010) ("National Broadband Plan").

widespread support. CTIA concurs that MSS spectrum would be well-suited for terrestrial mobile broadband service and that this allocation would be in the public interest.

There can be no doubt that "America's future competitiveness and global technology leadership depend, in part, upon the availability of additional spectrum."[10] Both CTIA and the Commission have highlighted the looming spectrum crisis, spurred by the dramatic increase in data traffic resulting from adoption of new applications, products, and services. In 2009, North American wireless networks carried approximately 17 petabytes of data per month, an amount of data equivalent to 1,700 Libraries of Congress.[11] In its recent Visual Networking Index, Cisco predicted that globally, mobile data traffic will double every year between now and 2014, and that by 2014 almost 66 percent of the world's mobile data traffic will be video.[12] Cisco also found that the average smartphone user generates 10 times the amount of traffic generated by the average non-smartphone user,[13] a significant fact in light of the continued growth and adoption of smartphones in the U.S.[14] CTIA's previous filings have highlighted the virtuous cycle of the

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10 Presidential Memorandum: Unleashing the Wireless Broadband Revolution (June 28, 2010), *available at* http://www.whitehouse.gov/the-press-office/presidential-memorandum-unleashing-wireless-broadband-revolution ("Presidential Memorandum on Wireless Broadband").

11 National Broadband Plan at 76.

12 *See, e.g.,* "Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2009-2014," Cisco Systems, Inc., at 1 (Feb. 2010), *available at* http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf.

13 *Id.* at 3.

14 *See, e.g., Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services,* Fourteenth Report, FCC 10-81, at 16 (2010) ("Smartphones accounted for 44 percent of total handsets sold in the third quarter of 2009, up from 27 percent in the second quarter of 2008"); National Broadband Plan at 77 ("This growth in aggregate traffic is due to increased adoption of Internet-connected mobile computing devices and increased data consumption per device. A recent survey of 7,000 U.S. adults found that

mobile ecosystem, a cycle that is characterized by innovation but which results in increased usage and spectrum scarcity, and which requires the allocation of additional spectrum to continue.[15]

As demonstrated in the filings of CTIA and others in recent Commission proceedings, wireless network operators continually invest in their networks and innovate with an eye toward increasing spectral efficiency.[16] Indeed, the U.S. leads the world in spectrum efficiency.[17] However, and as CTIA has previously noted, spectral efficiency is not a substitute for additional spectrum: the technological capacity limits of existing spectrum allocations will not keep pace with anticipated demand, and there are diminishing returns associated with spectrally efficient technologies and network designs intended to increase capacity.[18]

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smartphone penetration is now at 33% of mobile subscribers across the four largest wireless operators.").

[15] *See, e.g.*, Comments of CTIA – The Wireless Association®, GN Docket No. 10-133 (July 30, 2010). *See also* National Broadband Plan at 77 ("The rollout of advanced 4G networks using new versions of LTE and WiMAX technologies will also intensify the impact on mobile broadband networks. The next generation of mobile broadband networks will support higher data throughput rates, lower latencies and more consistent network performance throughout a cell site. This will increase the range of applications and devices that can benefit from mobile broadband connectivity, generating a corresponding increase in demand for mobile broadband service from consumers, businesses, public safety, health care, education, energy and other public sector users.").

[16] Reply Comments of CTIA – The Wireless Association®, GN Docket No. 09-157, at 13 (Nov. 5, 2009), citing Scott Corson, Vice President of Engineering, Qualcomm Flarion Technologies, FCC Wireless Broadband Workshop – General Transcript, at 17 (Aug. 13, 2009), *available at* http://www.broadband.gov/docs/ws_06_tech_wireless_transcript.pdf.

[17] Comments of CTIA – The Wireless Association®, GN Docket No. 09-157, at 21 (Sept. 30, 2009).

[18] *See, e.g.*, Comments of CTIA – The Wireless Association®, NBP Public Notice #6, GN Docket No. 09-51, at 13 (Oct. 23, 2009) ("CTIA NBP PN #6 Comments") ("While the FCC is technically correct that, to some degree, the capacity of a particular license can be increased by investing in more efficient modulation schemes or investing in infrastructure to enhance spectrum re-use, there are technical and economic limits to increasing capacity in existing bands. These limits are being tested on carriers' existing mobile allocations and the remaining efficiencies that might be wrung from existing spectrum bands will in no way meet the compounding demand for data services."); Comments of T-Mobile USA, Inc., GN Docket No.

While next generation networks are more efficient, the reality is that deployment of these networks will also stimulate additional demand that ultimately will exacerbate the ongoing spectrum shortage. Further, these technologies, such as LTE and WiMAX, are most efficient when deployed using wide radio channels, delivering higher peak data rates and more intensive spectrum use. WiMAX currently operates in 10 MHz channels, as does dual-carrier HSPA.[19] LTE operates in 20 MHz channels, while LTE-Advanced uses up to 40 MHz channels.[20] Many mobile broadband providers may not have sufficiently large blocks of contiguous spectrum available across their service areas to take full advantage of these new technologies. The Commission can therefore promote the optimal and efficient use of these advanced technologies by making available new spectrum in large contiguous blocks.

The record developed in response to the Commission's various National Broadband Plan Public Notices demonstrates the widespread industry support for the allocation of additional spectrum for mobile broadband, and the examination of MSS spectrum in particular. For example, AT&T encouraged the Commission to "examine the efficiency of existing Mobile Satellite Service allocations in the 2 GHz band."[21] Sprint Nextel similarly argued that reallocation of MSS spectrum would allow terrestrial wireless providers "to expand on their

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10-127, at 4 (July 15, 2010) ("Wireless operators can often achieve some increases in capacity by cell sectorization and constructing additional cell sites in a given area, but the efficiency gains are quite limited. Moreover, such strategies quickly become cost prohibited because, unlike adding new cable lines, the physics of spectrum engineering subjects these techniques to the law of diminishing returns. – *i.e.*, adding a cell site does not increase the capacity in an area nearly as much as it increases operating costs.").

19 *Mobile Broadband Spectrum Demand*, Rysavy Research, at 20 (Dec. 2008) *available at* http://www.rysavy.com/Articles/2008_12_Rysavy_Spectrum_Demand_.pdf ("*Mobile Broadband Spectrum Demand*").

20 *Id.*

21 Reply Comments of AT&T Inc.—NBP Public Notice #6, GN Docket No. 09-51, at 12 (Nov. 13, 2009).

proven record of providing innovative new broadband services to the American public."[22] And MetroPCS noted that "the MSS allocation in the 2 GHz band is proximate to the existing AWS-1 band that is being rapidly and successfully commercially deployed by a variety of wireless carriers."[23]

As noted above, MSS spectrum in general and the 2 GHz MSS spectrum in particular is ideally suited for terrestrial mobile broadband services. The Commission's National Broadband Plan proceedings highlighted the ideal characteristics of spectrum for mobile broadband: spectrum bands below 3 GHz are the most desirable for mobile broadband because of their propagation characteristics,[24] large continuous blocks of spectrum best enable next-generation network standards,[25] international harmonization will lower equipment costs and enable innovation,[26] and proximity to existing mobile broadband spectrum facilitates the development

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[22] Comments of Sprint Nextel Corporation – NBP Public Notice #6, GN Docket No. 09-51, at 12 (Oct. 23, 2009).

[23] Comments of MetroPCS Communications, Inc., GN Docket No. 09-51, at 12 (Oct. 23, 2009).

[24] *Federal Operations in the 1755-1850 MHz Band: The Potential for Accommodating Third Generation Mobile Systems*, Interim Report, U.S. Department of Commerce at 7 (rel. Nov. 15, 2000) ("NTIA Interim Report"), *available at* http://www.ntia.doc.gov/osmhome/reports/imt2000/imt2000.pdf (explaining that the physical processes governing the propagation of radio waves in the frequency range below 3 GHz let them be efficiently transmitted and received by small user devices and give them the ability to support high data rates, making them ideal for mobile telecommunications uses).

[25] *Mobile Broadband Spectrum Demand*; Comments of 3G Americas—NBP Public Notice #6, GN Docket No. 09-51, at 8 (Oct. 23, 2009) ("[S]pectrum allocated for commercial mobile broadband should be as contiguous as possible. Current allocations are primarily based on 5 and 10 MHz blocks. Such allocations may have been appropriate for second, and even third, generation data services, but they are not sufficient to support advanced data services. Wider bandwidth allocations are better suited for future, data-intensive wireless broadband services.").

[26] T-Mobile NBP PN #6 Comments at 16 ("The spectrum identified should be in blocks that are largely contiguous and globally harmonized to the extent possible, in order to permit greater efficiencies in the production of mobile devices and equipment, with corresponding savings for U.S. mobile users."); Motorola NBP PN #6 Comments at 10 ("When possible, harmonization with global allocations should be a goal to drive equipment costs downward and to facilitate roaming on a regional and global basis. Harmonization will help drive investment in

of mobile equipment.[27] MSS spectrum has all of these characteristics and is thus ideally suited for terrestrial mobile broadband use. In particular, the 2 GHz MSS spectrum is adjacent to spectrum licensed to the Personal Communications Service ("PCS") and Advanced Wireless Service ("AWS").[28] In light of the urgent need for additional spectrum for mobile broadband, CTIA strongly encourages the Commission to continue to assess the amount of spectrum allocated to mobile satellite providers, whether these providers are fully and efficiently using their spectrum authorizations, and whether this spectrum can be reallocated to terrestrial uses.

In any further allocation of spectrum for terrestrial wireless services, the Commission should continue to embrace its policies of exclusive-use licensing and flexible service rules. For example, in the 1990s the Commission gave PCS and cellular licensees flexibility to provide virtually any service, mobile or fixed, and noted that this flexibility "will provide the most effective approach for meeting [the agency's] four objectives of universality, speed of deployment, diversity of services and competitive delivery."[29] The FCC embraced this policy position when it recently withdrew from circulation the AWS III proposal from M2Z.[30] This regime has fostered innovation and investment in wireless networks and promoted competition.

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technologies and services and will result in lower costs due to economies of scale in the global market.").

27 CTIA NBP PN #6 Comments at 10.

28 The PCS upper band ends at 1995 MHz (if the G Block is included) and should the PCS H Block proceeding be completed, PCS will extend to 2000 MHz. The lower 2 GHz MSS spectrum block is from 2000 to 2020 MHz. The AWS upper band runs from 2110 to 2155 MHz. The AWS-2 and AWS-3 spectrum, which do not yet have service rules completed, extends from 2155 to 2180 MHz. The upper 2 GHz MSS spectrum band extends from 2180 to 2200 MHz.

29 *New Personal Communications Services*, Second Report and Order, 8 FCC Rcd 7700, 7712 at ¶ 23 (1993) (authorizing the PCS band primarily for mobile and portable communications and ancillary fixed communications).

30 "M2Z: FCC Closes Door On Free Broadband Proposal," Broadcasting & Cable (Sept. 1, 2010) (*available at*: http://www.broadcastingcable.com/article/456602-M2Z_FCC_Closes_Door_On_Free_Broadband_Proposal.php).

Indeed, the Commission has credited existing exclusive, flexible-use bands as being the most intensively used spectrum and as serving as a "runway" for the launch of innovative services.[31] And, critically, the Commission's policies of exclusive-use licensing and flexible service rules have provided licensees with certainty that they can invest heavily in their networks without the threat that their services would be subjected to harmful interference. Conversely, wireless broadband providers are less likely to invest in infrastructure for new services without certainty that they can operate their networks at a planned level of quality and modify their networks to meet the demands of a dynamic, evolving marketplace.

III. THE NPRM PROPOSALS SHOULD BE ADOPTED BY THE COMMISSION

A. CTIA Supports the Addition of Primary Fixed and Mobile Allocations for the 2000-2020 MHz and 2180-2200 MHz Bands.

In the MSS NPRM, the Commission tentatively concluded to add Fixed and Mobile allocations to the 2000-2020 and 2180-2200 MHz bands that would be co-primary with the existing Mobile-Satellite allocation for these bands.[32] CTIA supports this proposal, as this allocation is the logical first step towards repurposing this spectrum for terrestrial mobile broadband services. This allocation promotes CTIA's above-stated goal of international harmonization, as this 2 GHz spectrum has a similar primary terrestrial allocation internationally.[33] CTIA agrees that the FCC's proposal "lays the groundwork for providing

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[31] National Broadband Plan at 84 ("In the bands below 3.7 GHz, 547 megahertz is currently licensed as flexible use spectrum that can be used for mobile broadband. Of this amount, the Cellular and PCS bands compose 170 megahertz and represent the most intensively used spectrum today. The majority of the remaining 377 megahertz was auctioned or rebanded within the past six years and is just now coming online for mobile broadband deployment. This latter portion brought more than a three-fold total increase in total spectrum for mobile services and provides a 'runway' for the launch of next-generation mobile broadband services.").

[32] MSS Notice at ¶ 10.

[33] CTIA would note that while there is an international fixed and mobile allocation for the 2 GHz spectrum, there still needs to be additional standards work to develop mobile broadband

additional flexibility in use of the 2 GHz spectrum in the future."[34] Further, CTIA also supports reserving any spectrum returned to the Commission in these spectrum bands for purely terrestrial mobile services, and believes that this result would be consistent with prior Commission actions.[35] By initiating this allocation, and ensuring that recaptured spectrum be subject to this new determination, the Commission will take the first steps toward enabling this new spectrum for mobile broadband to be developed and deployed by the wireless industry.

B. Adoption of Secondary Market Rules for MSS Spectrum Would Be Appropriate.

CTIA also supports the Commission's proposal to subject spectrum leasing arrangements involving MSS spectrum to the same Commission general secondary market spectrum leasing policies and rules that currently apply to all terrestrial wireless services.[36] CTIA agrees with the Commission that such action will "provide greater regulatory predictability and parity."[37] CMRS providers have successfully utilized the Commission's secondary market rules, and in so doing have "ensure[d] spectrum gets put to its highest and best use"[38] and promoted efficient

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profiles for use of this spectrum internationally. However, given that there is an international allocation for terrestrial fixed and mobile services, this process is greatly simplified than for other MSS spectrum bands without such an allocation.

34 *Id.* at ¶ 9.

35 For example, when the Commission decided to auction 39 GHz licenses on a BTA basis, there existed incumbent 39 GHz licensees who were licensed on a point-to-point basis. The Commission required the new BTA licensees to protect the incumbent from harmful interference, but stated that "should such an incumbent lose its authority to operate, the BTA license holder will be entitled to operate within the portion of the forfeited rectangular service areas located within its BTA, without being subject to competitive bidding." *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands: Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz*, Report and Order and Second Notice of Proposed Rule Making, 12 FCC Rcd 18600, ¶¶ 77-79 (1997).

36 *MSS Notice* at ¶ 17.

37 *Id.*

38 CTIA NBP PN #6 Comments at 32.

deployment of broadband wireless networks.[39] As these rules have promoted significant public interest benefits, there is no reason why they should not also be extended to MSS licensees. In fact, inclusion of these services as part of the secondary market rules is a logical step, as MSS is classified as CMRS under Part 20 of the Commission's rules.[40] As such, simply including MSS providers as part of the included services under Section 1.9005 of the Commission's rules[41] would provide all the regulatory change needed to ensure that MSS spectrum is subject to the same leasing requirements placed upon other CMRS providers.[42]

IV. CTIA ENCOURAGES REALLOCATION OF THE 2 GHZ MSS SPECTRUM FOR TERRESTRIAL MOBILE SERVICES

In the MSS NOI, the Commission has requested comment on how to best encourage the growth of new mobile broadband services in the 2 GHz MSS band.[43] CTIA believes that the best approach would be for the Commission to reallocate this spectrum to terrestrial mobile broadband use. As CTIA noted above, because this spectrum is adjacent to other terrestrial mobile allocations, it is particularly-well suited for terrestrial mobile broadband and could readily be put to use for such services.

CTIA encourages the Commission to explore alternatives that would enable the reallocation of this spectrum. In the MSS NOI, the Commission has proposed options such as

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39 *Id.*, quoting Michael L. Katz, *Don't Let Short-Term Reforms Interfere with Long-Term Policy Goals*, attached to Comments of CTIA, ET Docket No. 03-237 (Apr. 5, 2004).

40 47 C.F.R. § 20.9(a)(10) (defining as a commercial mobile radio service "[a]ny mobile satellite service involving the provision of commercial mobile radio service (by licensees or resellers) directly to end users").

41 47 C.F.R. § 1.9005.

42 CTIA notes that application of the Commission's secondary market rules does not alter the existing "gating criteria" that MSS operators must meet in order to obtain ATC authority. *See* 47 C.F.R. § 25.149.

43 *MSS Notice* at ¶ 26.

incentive auctions and voluntary return of spectrum.[44] CTIA has long supported spectrum policies that encourage putting spectrum to its highest and best use, and believes the Commission should consider mechanisms that could promote this outcome. Should Congress provide the Commission authority for incentive auctions, CTIA would support use of this mechanism for repurposing MSS spectrum for terrestrial mobile broadband services. CTIA also would consider other mechanisms, including appropriate leasing proposals, for bringing the spectrum to market. CTIA notes, however, that any methodology for reclaiming spectrum from incumbents requires a balancing of the public interest issues associated with the process. For example, the Commission (and CTIA and its members) have long been concerned about the potential for windfalls and unjust enrichment of an incumbent that has not fully complied with its license conditions or has otherwise profited unjustly from its spectrum holdings.[45] Such a policy would also raise the cost of entry for new CMRS licenses, with no corresponding benefit to the public. As the Commission works to bring this much need spectrum to market, CTIA notes that such issues need to be carefully considered.

Further, while CTIA supports the consideration of multiple options for reallocating this spectrum, it cautions the Commission that piecemeal reallocation may not achieve the Commission's objectives. The approach suggested by the MSS NOI to allow 2 GHz MSS

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44 *MSS Notice* at ¶¶ 28-29.

45 *See, e.g., Applications for License and Authority to Operate in the 2155-2175 MHz Band, Petitions for Forbearance Under 47 U.S.C. § 160*, Order, 22 FCC Rcd 16563, ¶¶ 10-11 (2007) ("Indeed, we have concluded in the past that [competitive bidding] best serves the public interest because it is the one most likely to result in the selection of licensees that will value the spectrum the most and put it to its highest and most efficient use. Based on the record compiled in this proceeding so far, we conclude that the benefits of considering such a licensing regime . . . even given the potentially longer timeline to the provision of actual service, outweigh the value of any purported public interest benefits of providing M2Z or NetfreeUS with a route to licensing that, by its very nature, precludes even the possibility of an auction and would simply give either company spectrum for free.").

licensees to return some of their spectrum while allowing more flexibility in use of their remaining spectrum appears unlikely to lead to sufficient spectrum being reallocated and does not appear to be an effective means of promoting broadband deployment. Rather, as noted above, mobile broadband will be more efficient if deployed in larger blocks of spectrum. Adoption of proposals to allow incumbents to "slice and dice" spectrum holdings to enable flexibility of their remaining spectrum holdings likely would not lead to effective and efficient use of spectrum for mobile broadband purposes. CTIA therefore believes that such an approach should not be considered.

Finally, CTIA encourages the Commission to consider any reallocated spectrum as part of a comprehensive spectrum plan, rather than considering each newly identified and allocated spectrum block in isolation. For example, CTIA is encouraged by the Commission's acknowledgment that the AWS-2 "J Block" spectrum could be integrated with 2 GHz MSS spectrum to attract new investment and promote utilization of new mobile broadband networks.[46] CTIA urges the Commission to consider all spectrum to be allocated to mobile broadband services as part of a fully-defined, comprehensive spectrum framework.

In the National Broadband Plan, the Commission recommended that policymakers make available 500 MHz of spectrum suitable for wireless broadband use.[47] Similarly, the Presidential Memorandum on Wireless Broadband calls on NTIA, working in collaboration with the Commission, to make available a total of 500 MHz of Federal and nonfederal spectrum over the next 10 years.[48] CTIA supports an inventory of spectrum below 3 GHz to support these efforts,[49]

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46 *MSS Notice* at ¶ 30.

47 National Broadband Plan at 84.

48 *See* n.10, *supra*.

and believes that the Commission should consider other MSS spectrum in the 1.5, 1.6, and 2.4 GHz bands that have existing satellite systems as part of this investigation. The need to examine carefully the utilization of these bands is sharply illustrated by the Commission's recent denial of a request for waiver of the generally applicable ATC "gating criteria" sought by Globalstar.[50] Globalstar's failure to live up to the gating criteria, and to subsequently live up to the conditions upon which the Commission granted it a waiver, validated CTIA's concerns that Globalstar has failed to make effective use of its assigned spectrum for the full benefit of consumers. Through careful inventory and comprehensive planning for these bands, the Commission can facilitate the provision of large, contiguous spectrum blocks needed for mobile broadband services. Further, this effort will mitigate interference effects from inefficient spectrum band plans.

Finally, CTIA believes that, in making MSS spectrum available for wireless broadband use, the Commission should identify blocks of spectrum of various sizes. This will allow the Commission to simultaneously auction multiple licenses suitable for large and small participants. In past spectrum allocations, the Commission has found that auctioning spectrum blocks of varying sizes that cover a variety of geographic area sizes would "promote dissemination of licenses among a wide variety of applicants, accommodate the competing need for both large and small licensing areas, meet the various needs expressed by potential entrants seeking access to spectrum and incumbents seeking additional spectrum, and provide for large spectrum blocks

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[49] *See, e.g.*, CTIA NBP PN #6 Comments at 17 ("Even in the absence of legislation, NTIA and the Commission can and should begin an inventory and assessment of spectrum usage, with a goal of identifying significant amounts of spectrum for licensed commercial wireless use.").

[50] *Globalstar Licensee LLC Application for Modification of License to Extend Dates for Coming into Compliance with Ancillary Terrestrial Component Rules*, Order, File No. SAT-MOD-20091214-00152 (rel. Sept. 14, 2010) (finding that Globalstar has not established that its failure to come into compliance with the ATC gating criteria within the established timeframe was due to circumstances beyond its control or other sufficient justifications, and suspending Globalstar's authority for operation of WiMAX ATC stations in the 2483.5-2495 MHz frequency band).

that can facilitate broadband deployment."[51] By reallocating this spectrum for terrestrial mobile services, the Commission will "catalyze investment and spark innovation, create jobs, help increase broadband speeds and capacity, and take an important step to make sure that America has the spectrum it needs to lead the world in mobile."[52]

[51] *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, FCC 07-132, at ¶ 64 (2007).

[52] *MSS Notice*, at Statement of Chairman Julius Genachowski.

V. CONCLUSION

CTIA's member companies are committed to meeting the skyrocketing demand for wireless broadband services. CTIA welcomes this opportunity to provide comment on the Commission's initiative to make MSS spectrum available for mobile broadband services, and believes that the Commission's adoption of its proposals in the NPRM, together with a reallocation of 2 GHz MSS spectrum, will play an important role in achieving the National Broadband Plan's spectrum policies.

Respectfully submitted,

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