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

In The Matter of	)	
	)	
Spectrum Task Force Requests Information	)	ET Docket No. 10-123
On Frequency Bands Identified by NTIA as	)	
Potential Broadband Spectrum	)	

COMMENTS OF 4G AMERICAS

4G Americas, LLC ("4G Americas") is pleased to respond to the Public Notice in the above-referenced proceeding, released March 8, 2011 ("Broadband Spectrum PN"). 4G Americas unites mobile operators, vendors and manufacturers in the Americas to provide a single voice representing the Third Generation Partnership Project ("3GPP") family of wireless technologies. The mission of 4G Americas is to promote, facilitate and advocate for the deployment of the 3GPP family of mobile broadband technologies throughout the ecosystem – including networks, services, applications and wirelessly connected devices – in the Americas.

In the Broadband Spectrum PN, the Office of Engineering and Technology and the Wireless Telecommunications Bureau (collectively, "Spectrum Task Force") seeks comment on the steps that the Federal Communications Commission ("FCC" or "Commission") could take to best promote wireless broadband deployment in the 1695-1710 MHz and 3550-3650 MHz bands identified by the National Telecommunications and Information Administration ("NTIA") for accommodating wireless broadband. The Broadband Spectrum PN also seeks to inform ongoing assessment of several additional bands NTIA has identified for potential deployment of wireless broadband, including the 1755-1850 MHz, 4200-4220 MHz and 4380-4400 MHz bands, and others identified by NTIA as candidates for commercial use.

The Spectrum Task Force asks, with respect to these bands, whether equipment is readily available, and whether future broadband service requires paired spectrum bands, and if so, what are the most suitable for pairing? As 4G Americas has noted before, internationally harmonized spectrum is more likely to result in equipment that has benefitted from global economies of scale and scope, as well as innovation. The 1755-1780 MHz band – unlike the 1695-1710 MHz band – is regionally and internationally harmonized spectrum for mobile broadband. In general, the 1.7/2.1 GHz band, the 3GPP Band 10, is harmonized in our hemisphere for mobile broadband technologies including HSPA and LTE. Therefore, commercial mobile broadband allocations in the 1755-1780 MHz band (uplink), especially when paired with 2155-2180 MHz (downlink), will capitalize on the economies of scale in infrastructure and devices so as to be able to serve society efficiently. The Americas and providers in other regions have identified the 1.7/2.1 GHz Band 10 as ideal for mobile broadband. With a critical mass of global vendors and operators developing network equipment and devices to operate in Band 10, equipment will be readily available in this important band.

Conversely, whereas we commend the FCC for trying to find more spectrum for the wireless industry to meet the tremendous mobile broadband data demands, use of 1695-1710 MHz for mobile broadband in the U.S. would be a fragmented spectrum allocation that would make it more difficult for vendors to export equipment, technologies and services developed for that fragment to other markets. U.S. providers for that fragment would not benefit from developments in international markets. Fragmented spectrum allocations hamper innovation and require companies to dedicate resources for a single market, rather than sharing those development costs globally. Fragmented allocations for the U.S. market raise the cost of devices for the U.S. consumer, and limit the availability of products and services in the U.S. market.

Moreover, specialized technology takes time to commercialize, so not only would U.S. consumers using fragmented spectrum have higher cost and more limited devices and services, but also those devices and services would take longer to come to market.[1]

The Brattle Group's recently-released report, *The Economic Basis of Spectrum Value: Pairing AWS-3 with the 1755 MHz Band is More Valuable than Pairing it with Frequencies from the 1690 MHz Band* ("*AWS-3 Pairing Report*")[2] discusses the benefit to the U.S. Treasury of a harmonized pairing of the AWS-3 band based on projected auction proceeds. Specifically, the report "compares the value of pairing the AWS-3 with the 1755 MHz band to the value of pairing it with the 1690 MHz band, pairing it with the 15 MHz of the 1695 MHz band, or leaving the AWS-3 band unpaired."[3] The report estimated that the value of a symmetrically paired AWS-3 band would be approximately $12 billion. However, "based on the additional costs of deploying the 1690 MHz band, including higher device costs, additional capital expenditures, and increased uncertainty," that paired spectrum value would be only $7.3 billion.[4] The report also estimated that an asymmetric pairing with the 1695 MHz band, "combined with the equipment and infrastructure penalties and uncertainty," would result in a total spectrum value of $6.4 billion, with the, "proposed exclusion zones associated with the 1695 MHz band []

---

1 For a more detailed discussion of the fragmentation issue, see 4G Americas' 2009 report, *3GPP Technology Approaches for Maximizing Fragmented Spectrum Allocations*, which discusses the challenge of how to permit wider spectrum usage by operators using various technologies, while at the same time maximizing use of "fragmented" or non-standard spectrum bands. Available at http://www.4gamericas.org/documents/3GA%20 Underutilized%20Spectrum_Final_7_23_092.pdf.

2 Coleman Bazelon, The Brattle Group, Inc., *The Economic Basis of Spectrum Value: Pairing AWS-3 with the 1755 MHz Band is More Valuable than Pairing it with Frequencies from the 1690 MHz Band* (2011), http://www.brattle.com/_documents/UploadLibrary/Upload938.pdf ("*AWS-3 Pairing Report*").

3 *AWS-3 Pairing Report* at 22.

4 *Id.*

reduc[ing] the value by another $1.1 billion to $5.3 billion or just 44% of the value of the 1755 MHz pairing."[5] 4G Americas agrees with the *AWS-3 Pairing Report*, and commends it to the Commission for close review.

Attached to this filing for submission into the above-referenced proceeding is 4G Americas' recently-released white paper, *Sustaining the Mobile Miracle: A 4G Americas Blueprint for Securing Mobile Broadband Spectrum in this Decade* (2011) (the "Blueprint").[6] The Blueprint focuses on strategies and policies addressing the need for additional spectrum for mobile broadband services, and provides a guide for securing a bright mobile broadband future to serve society's wireless and technology needs.

As the Blueprint explains, mobile broadband in the Americas is in a delicate state. While the growth in subscribership has been phenomenal and the features and capabilities of today's mobile broadband networks, devices and services are astounding, mobile broadband stands at a potentially perilous time because the industry lacks sufficient incremental supply of one of its essential raw materials—spectrum. Steps must be taken today to secure the additional spectrum needed for mobile broadband, and countries, including the United States, must begin now to plan for the future, in order to preserve the promise of the "mobile miracle."

In the Blueprint, 4G Americas offers guideposts to aid the Commission and other stakeholders in working to secure a bright mobile broadband future. Specifically, 4G Americas believes that the following spectrum allocation policies are imperative, as detailed in the Blueprint:

---

5 *Id.*

6 4G Americas, LLC, *Sustaining the Mobile Miracle: A 4G Americas Blueprint for Securing Mobile Broadband Spectrum in this Decade* (2011), http://www.4gamericas.org/UserFiles/file/White%20Papers/4G%20Americas%20Mobile%20Broadband%20Spectrum%20Requirements%20March%202011.pdf.

1. Configure Licenses with Wider Bandwidths;
2. Group Like Services Together;
3. Be Mindful of Global Standards;
4. Pursue Harmonized/Contiguous Spectrum Allocations;
5. Exhaust Exclusive Use Options Before Pursuing Shared Use; and
6. Not All Spectrum is Fungible – Align Allocation with Demand

4G Americas applauds the Commission for seeking input on ways to promote wireless broadband deployment and hopes that the Commission will follow these guideposts as it works towards our shared goal of promoting wireless broadband deployment.

Respectfully submitted,

Chris Pearson
President
4G Americas, LLC
1750 112th Ave., S.E.
Suite B220
Bellevue, WA 98004

April 22, 2011