



**December 6, 2018**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Via ECFS**

**Re: NOTICE OF EX PARTE  
WT Docket No. 10-208: Universal Service Reform – Mobility Fund  
WC Docket No. 10-90: Connect America Fund**

Womble Bond Dickinson (US) LLP

1200 Nineteenth Street, NW  
Suite 500  
Washington, DC 20036

t: 202.467.6900  
f: 202.467.6910

Erin P. Fitzgerald  
Associate  
Direct Dial: 202-857-4428  
Direct Fax: 202-261-0081  
E-mail: [Erin.Fitzgerald@wbd-us.com](mailto:Erin.Fitzgerald@wbd-us.com)

Dear Ms. Dortch:

On December 4, 2018, Jana Wallace, Chief Operations Officer of Panhandle Telecommunication Systems, Inc. ("Panhandle"), Carri Bennet, Counsel to Panhandle, and the undersigned met with: (1) Nathan Eagan, Kirk Burgee, Chelsea Fallon, and Aaron Goldberger with the Rural Broadband Auctions Task Force; (2) Travis Litman, Chief of Staff and Senior Wireline Legal Advisor to Commissioner Rosenworcel; (3) Preston Wise, Acting Special Counsel to Chairman Pai; (4) Commissioner Carr and Jamie Susskind, Chief of Staff to Commissioner Carr; and (5) Commissioner O'Rielly, in separate meetings.

Panhandle distributed the attached PowerPoint presentation at the meetings, and used this presentation to illustrate the company's experience with the Mobility Fund Phase II ("MF-II") challenge process.

As an initial matter, Panhandle expressed continued concerns regarding overstated 4G LTE coverage by Verizon Wireless.<sup>1</sup> Three years ago, as discussions surrounding MF-II and the accompanying challenge process began in earnest, Panhandle hired a professional engineering firm (Monte R. Lee and Company or "MRL") to estimate Verizon coverage using specific cell site locations, observational estimates of radio height and antenna placement on towers, 700 MHz spectrum, and service that reflects the customer experience. The Oklahoma Panhandle has a total area of 14,778.47 square kilometers. Using publicly available information, and with the aid of a newer modeling tool and the FCC-adopted 5 Mbps downlink standard, MRL determined that Verizon's coverage area should be approximately 6,806.49 square kilometers – nearly half of the LTE coverage area Verizon publicly claims to serve. A map showing this predicted coverage is available on page 3 of the attachment.

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<sup>1</sup> See [Letter](#) from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.*, at p. 2 (Apr. 20, 2018) ("*RWA Apr. 20, 2018 Ex Parte*") (discussing PTCL concerns regarding overstated Verizon Wireless 4G LTE coverage).



Since this propagation map was compiled and the MF-II challenge process concluded last month, Panhandle has driven more than 124,421 miles (a distance nearly equivalent in distance to driving 5 times around the Earth) in order to compile data for the MF-II challenge process.<sup>2</sup> A map of the Oklahoma Panhandle on page 4 of the attachment illustrates testing completed by Panhandle as of November 26, 2018. The red areas indicate test points receiving 5 Mbps or higher and the green areas represent tests below 5 Mbps or those that did not register 4G LTE service. Verizon publicly claims to provide 4G LTE service throughout most of the depicted area.<sup>3</sup> Panhandle's Verizon speed test data collection depicted on the map covered a total of 2,060,883,573 test points. Of the total test points collected, 1,728,794 (83.9%) tested below 5 Mbps download speed or did not register 4G LTE service at all on Verizon-designated handsets. The results of the speed tests taken by Panhandle largely bear out the initial Verizon propagation projections that MRL predicted. Like the Rural Wireless Association, Inc.,<sup>4</sup> Smith Bagley, Inc.,<sup>5</sup> and a coalition of radio frequency engineering firms,<sup>6</sup> Panhandle expressed its concern regarding Verizon's overstated coverage, and urged the Commission to require re-filing of Verizon's data to comport with standard RF engineering practices.

<sup>2</sup> 124,421 miles also equates to more than 40 trips between Panhandle's headquarters in Guymon, Oklahoma and the Federal Communications Commission in Washington, DC.

<sup>3</sup> [Verizon Wireless Interactive Map](#) (last visited June 28, 2018) (showing 4G LTE coverage throughout nearly all of the Oklahoma Panhandle).

<sup>4</sup> See generally [Letter](#) from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.* (Mar. 21, 2018) (expressing concern that the challenge process parameters will allow "overstated mobile wireless coverage to stand unchallenged in most places"); *RWA Apr. 20, 2018 Ex Parte* at p. 2 (expressing concerns regarding overstated Verizon Wireless 4G LTE coverage); [Letter](#) from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.* (Apr. 30, 2018) (reiterating concerns regarding overstated unsubsidized 4G LTE coverage) ("*RWA Apr. 30, 2018 Ex Parte*"); *Universal Service Reform – Mobility Fund*; WC Docket No. 10-90, WT Docket No. 10-208, [Informal Request of the Rural Wireless Association, Inc. for Commission Action](#) (Aug. 6, 2018); [Letter](#) from Caressa D. Bennet, General Counsel, RWA, and Erin P. Fitzgerald, Regulatory Counsel, RWA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.* (Nov. 26, 2018).

<sup>5</sup> *Universal Service Reform – Mobility Fund*; WC Docket No. 10-90, WT Docket No. 10-208, [Informal Request of Smith Bagley, Inc. for Commission Action](#) (Oct. 18, 2018).

<sup>6</sup> [Letter](#) from Mark Seagren, CTO/Senior RF Engineer, 4G Unwired, Inc., Lynn R. Merrill, P.E., President and CEO, Monte R. Lee and Company, Howard Gorter, P.E., Executive Vice President, Engineering Operations, Palmetto Engineering & Consulting, and Jeff Little, President – Central Division, CT&T, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.* (July 5, 2018); [Letter](#) from Mark Seagren, CTO/Senior RF Engineer, 4G Unwired, Inc., Lynn R. Merrill, P.E., President and CEO, Monte R. Lee and Company, Howard Gorter, P.E., Executive Vice President, Engineering Operations, Palmetto Engineering & Consulting, and Jeff Little, President – Central Division, CT&T, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 10-208 *et al.* (Aug. 3, 2018).



Panhandle provided additional information from its work on the challenge process – an endeavor completed last month. As noted above, Panhandle drove 124,421 miles during the challenge process, and took a total of 3,605,517 speed tests. Of the total test points collected, 3,232,612 (89.7%) tested below 5 Mbps download speed or did not register 4G LTE service at all. Panhandle submitted approximately 17.3% of the 20,809,503 total test points submitted by 21 challengers,<sup>7</sup> and did so in a three-county geographic area. Panhandle took speed tests in 14,507 total grid cells, approximately 11.2% of the 129,537 total grid cells tested.<sup>8</sup>

Panhandle met the 75% testing threshold in 11,066 (76.3%) of the 14,507 grid cells in which it performed speed tests, but not in 3,441 (23.7%) of the cells. Panhandle noted that nearly all of the tested cells that did not meet the 75% threshold were accessible only by foot (due to lack of roads and/or difficult terrain). Given drive test results, and the difficulties associated with meeting the 75% testing threshold, Panhandle urged Commission staff to use its discretion to consider test results in cells where the 75% testing threshold was not met. Staff should use its discretion to make case-by-case eligibility decisions in those areas. This discretion would primarily be used in cases where: (1) grid cells were not accessible to meet the 75% testing threshold; (2) those grid cells are surrounded by accessible grid cells where challengers could meet the 75% threshold; AND (3) the surrounding grid cells' test points failed to meet the 5 Mbps coverage requirements.

Panhandle explained that the MF-II proceeding has been time-consuming. Panhandle employees dedicated 6,720 hours to the MF-II 4G LTE coverage data collection and the challenge process between November 1, 2017 and November 26, 2018. This amounts to more than three full-time employees for one year. Panhandle has paid employee wages totaling \$504,815 between November 1, 2017 and November 26, 2018 for MF-II related work.

In addition to expenses related to its own employees, Panhandle has sought out specialized regulatory and engineering expertise for the MF-II challenge process. These expenses related to the MF-II 4G LTE coverage data collection and the challenge process have totaled \$135,000 between November 1, 2017 and October 31, 2018. The company expects to pay its regulatory and engineering experts at least an additional \$50,000 for challenge process-related work.

Early on in the MF-II proceeding, Panhandle and other rural service providers expressed concern regarding data costs related to challenge process participation.<sup>9</sup> Panhandle's data costs

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<sup>7</sup> Public Notice, [Mobility Fund Phase II Challenge Process Portal Update: November 2018](#), WC Docket No. 10-90, WT Docket No. 10-208 (Dec. 3, 2018).

<sup>8</sup> *Id.*

<sup>9</sup> See e.g., *Connect America Fund, Universal Service Reform – Mobility Fund*, [Comments of the Rural Wireless Association, Inc.](#), WC Docket No. 10-90, WT Docket No. 10-208, at pp. 5-6 (Nov. 8, 2017) (stating that the Bureaus should not require challengers to submit extraneous data parameters because the collection of additional information “requires additional phones and data usage, which exponentially increases the cost to raise a challenge and the burdens placed on



thus far prove those concerns were justified. Between April 4, 2018 and November 29, 2018, Panhandle had used 7,400 gigabits of data and paid \$108,000.

By the time final Challenge Process expenses are paid, Panhandle estimates that it will have spent close to \$1 million – much of which could have been avoided, but for overstated Verizon coverage. Of course, there are many risks and other factors not easily quantified into miles, dollars, or gigabits. Panhandle explained that it engaged in a significant information campaign to educate its customers and the public-at-large as to why its employees are driving on little-traveled roads at slow speeds or knocking on doors requesting access to private property. Panhandle also noted that it did what it could to mitigate the risks to its employees by adding safety equipment to its vehicles. By way of example, Panhandle informed FCC staff that it had to temporarily modify its employment policies to allow drive testers to carry firearms in order to protect themselves from rattlesnakes, feral hogs, bobcats, and other dangers when driving off-road.

Further, the opportunity costs associated with challenge process participation are steep. Panhandle noted that has been working under its emergency operations plan. Many employees were pulled away from their usual day jobs and worked under different supervisors and in different departments in order to complete the challenge process. This caused Panhandle to pause general maintenance, and caused a significant slow-down of fiber-to-the-home conversions of its wireline network and upgrades to its wireless network. The company saw overtime grow by more than 50 percent in departments most affected by challenge process drive testing.

Panhandle appreciates the opportunity to discuss the MF-II challenge process, and welcomes a continued dialogue with Commissioners and staff on these issues.

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the challenger”); *see also* *Connect America Fund, Universal Service Reform – Mobility Fund, Comments of the Rural Wireless Association, Inc.*, WC Docket No. 10-90, WT Docket No. 10-208, at p.12 (Apr. 26, 2017) (stating that “challenge process drive testing costs to collect and process data will be enormous – estimates are in the hundreds of thousands of dollars for 1,000 square miles. The cost for mobile data consumed on another carrier’s network during testing runs *alone* will be as much [as] \$100 per day per device”).

December 6, 2018  
Page 5



Best regards,

**Womble Bond Dickinson (US) LLP**

Erin P. Fitzgerald  
*Counsel to PTSI*

Attachment