



July 13, 2018

Ms. Marlene H. Dortch, Secretary  
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**

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Dear Ms. Dortch:

On July 11, 2018, Jana Wallace, Chief Operations Officer of Panhandle Telecommunication Systems, Inc. ("Panhandle"), Kelley Wells, Regulatory Affairs Manager for Panhandle, Erin Fitzgerald, Counsel to Panhandle, and the undersigned met with: (1) Nathan Eagan, Kirk Burgee, Chelsea Fallon, and Michael Janson with the Rural Broadband Auctions Task Force; (2) Travis Litman, Chief of Staff and Senior Wireline Legal Advisor to Commissioner Rosenworcel; (3) Jay Schwartz, Wireline Advisor to Chairman Pai; (4) Jamie Susskind, Chief of Staff to Commissioner Carr; and (5) Amy Bender, Wireline Legal Advisor to 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 thus far.

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

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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 Panhandle concerns regarding overstated Verizon Wireless 4G LTE coverage).



the LTE coverage area Verizon publicly claims to serve. A map showing this predicted coverage is available on page 3 of the attachment.

Since this propagation map was compiled, Panhandle has driven more than 37,000 miles (a distance nearly equivalent to driving 1.5 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 June 16, 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. The pink is an estimate by MRL of service area for Verizon and the blue area indicates estimated area of less than 5 Mbps down load speed or no LTE coverage by Verizon. Verizon publicly claims to provide 4G LTE service throughout most of the depicted area.<sup>3</sup> Panhandle's speed test data collection depicted on the map covered 4,911.84 miles (7,904.84 kilometers) and a total of 402,573 test points. Of the total test points collected, 357,374 (88.8%) 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> and a coalition of radio frequency engineering firms,<sup>5</sup> Panhandle expressed its concern regarding Verizon's overstated coverage, and urged the Commission to further investigate and require re-filing of Verizon's data where warranted to comport with standard RF engineering practices.

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<sup>2</sup> 37,000 miles also equates to more than 12 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*).

<sup>5</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).



Panhandle thanked the Rural Broadband Auctions Taskforce and Commission staff for increasing the MF-II Challenge Process buffer radius from 250 to 400 meters,<sup>6</sup> and expressed its opposition to an Application for Review filed by Verizon<sup>7</sup> that seeks to vacate the *Challenge Procedures Reconsideration Order* and undo this increase. Panhandle explained that if the Commission vacates the *Challenge Procedures Reconsideration Order*, the initially-adopted 250 meter buffer radius would impose even more significant and unnecessary costs on prospective challengers. For instance, it would take 7,522 hours to test claimed unsubsidized coverage throughout the Oklahoma Panhandle using a 250 meter buffer radius.<sup>8</sup> A 400 meter buffer radius significantly reduces the hour total to 2,813.<sup>9</sup> Panhandle told staff that, while challenge process participation still requires a “herculean effort,” the 400 meter buffer radius makes such participation possible.

Panhandle provided information from its work on the challenge process thus far – an endeavor that is about one-third of the way complete. Given the time that its challenge process work has taken, Panhandle expressed immense gratitude that Chairman Pai has directed the Bureaus to extend the challenge process deadline by 90 days.<sup>10</sup> Because the initially-scheduled challenge process deadline is August 27, 2018, Panhandle urged Commission staff to move forward with the official extension via public notice as soon as possible.

As noted above (and on page 7 of the attachment), Panhandle has driven 37,740 miles during the challenge process thus far. These miles are depicted in blue on page 6 of the attachment. In order to test additional areas, and re-test square kilometers for which the initial test points were insufficient,<sup>11</sup> Panhandle estimates that it will drive an additional 65,000 miles to complete the challenge process – most of which will be on private property.<sup>12</sup> Relatedly, Panhandle spent \$7,180 on fuel costs between May 1, 2018 and June 25, 2018. The company expects to spend at least an additional \$20,000 in order to complete the challenge process. In addition, the company has encountered additional transportation maintenance, purchase, and replacement costs in order to facilitate challenge process participation. For instance, the lack of

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<sup>6</sup> *Connect America Fund, Universal Service Reform – Mobility Fund*, [Order on Reconsideration](#), WC Docket No. 10-90, WT Docket No. 10-208, DA 18-427 (rel. Apr. 30, 2018) (“*Challenge Procedures Reconsideration Order*”).

<sup>7</sup> [Application for Review of Verizon](#), WC Docket No. 10-90, WT Docket No. 10-208 (June 21, 2018).

<sup>8</sup> *RWA Apr. 30, 2018 Ex Parte* at p. 3 and Attachment A.

<sup>9</sup> *Id.*

<sup>10</sup> [Letter](#) from Ajit Pai, Chairman, FCC to Senator Roger Wicker (May 30, 2018),

<sup>11</sup> As shown on page 14 of the attachment, many of the grid cells in which Panhandle has driven the passable roads have not yet hit the 75% substantial coverage requirement. As such, Panhandle will need to re-drive these grid cells – either on private property or off-road using all-terrain vehicles.

<sup>12</sup> 102,740 miles is 34.25 trips from the Panhandle headquarters location in Guymon, Oklahoma to the Federal Communications Commission in Washington, DC and back. It is equivalent to more than four times the circumference of the earth.



roads in many square kilometer grid cells has necessitated the purchase of two all-terrain vehicles at a cost of approximately \$25,000. Difficult terrain has forced Panhandle to replace three truck tires in the last two weeks, and will require the company to purchase three new trucks next year at a cost of \$100,000 – several years sooner than would have been necessary without challenge process drive testing.

Panhandle explained that the MF-II proceeding has been time-consuming. Panhandle employees dedicated 1,726 hours to the MF-II 4G LTE coverage data collection and the challenge process between November 1, 2017 and June 22, 2018. The company estimates that its employees will spend at least an additional 4,200 hours on drive testing and other challenge process requirements. This is a total of nearly 6,000 hours, or three full-time employees for one year. Panhandle has paid employee wages totaling \$98,200 between November 1, 2017 and June 22, 2018 for MF-II related work. The company expects to pay its employees at least an additional \$200,000 for challenge process-related work. These figures are for wages only, and do not include overhead, benefits, or other employee-related expenses.

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 \$72,500 between November 1, 2017 and June 22, 2018. The company expects to pay its regulatory and engineering experts at least an additional \$175,000 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>13</sup> Panhandle's data costs thus far prove those concerns were justified. Between April 4, 2018 and June 26, 2018, Panhandle had used 2,250 gigabits of data and paid \$29,100. However, between when Panhandle drafted its PowerPoint presentation and visited the Commission, it received a bill from Verizon for another 1,777 gigabits of data and more than \$25,000. Further, the company hit its 200 gigabit data cap four days into its July Verizon billing cycle – and will pay overage fees for its use for the rest of the month. Panhandle initially estimated that it would use an additional 4,500 gigabits of data at a cost of \$63,000 in order to complete the challenge process, but now

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<sup>13</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 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”).



believes that its additional data costs will top \$100,000 and that it will be one of Verizon's best customers in the Oklahoma Panhandle. In order to pay for the costs associated with the challenge process, Panhandle noted that it is using its limited reserve funds. By the time the challenge process is over, Panhandle estimates that it will spend 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 has 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 has done what it can to mitigate the risks to its employees by adding safety equipment to its vehicles. Further, Panhandle informed Commission 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 it is essentially working under its emergency operations plan. Many employees have been pulled away from their usual day jobs and are working under different supervisors and in different departments in order to complete the challenge process. This has caused Panhandle to pause general maintenance, and has caused a significant slow-down of fiber-to-the-home conversions of its wireline network and upgrades to its wireless network. The company has seen 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 share its progress thus far. The company looks forward to a continued dialogue with Commissioners and staff on these issues.

Best regards,

**Womble Bond Dickinson (US) LLP**

Caressa D. Bennet  
Partner

Attachment