

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Connect America Fund — Alaska Plan	)	WC Docket No. 16-271
	)	
	)	

**ORDER ON RECONSIDERATION**

**Adopted: February 28, 2018**

**Released: February 28, 2018**

By the Chiefs, Wireline Competition Bureau and Wireless Telecommunications Bureau:

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**I. INTRODUCTION**

1. In this Order, the Wireline Competition Bureau (WCB) and Wireless Telecommunications Bureau (WTB) (collectively the Bureaus), grant in part and deny in part the Alaska Telephone Association’s (ATA) Petition for Reconsideration of the Bureaus’ *Map Instructions PN* and provide clarification regarding Alaska Plan carriers’ map data filing obligations (map collection).<sup>1</sup> We grant the Petition in part with respect to the required data accuracy standard for the map collection due to be filed in 2018 and extend the March 1, 2018 submission deadline until July 1, 2018. We also provide clarification regarding the data to be filed regarding “community anchor institutions” (CAI or anchor

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<sup>1</sup> ATA, Petition for Reconsideration, WC Docket No. 16-271 (filed Oct. 10, 2017) (Petition), <https://ecfsapi.fcc.gov/file/10102952211571/2017-10-10%20ATA%20Middle%20Mile%20Recon.pdf>. Pursuant to its delegated authority, the Bureaus provided initial guidance and instructions on September 8, 2017. *Wireline Competition Bureau and Wireless Telecommunications Bureau Release Instructions for Filing Terrestrial Middle-Mile Network Maps*, Public Notice, 32 FCC Rcd 6863 (2017) (*Map Instructions PN*); *id.* Appx. at 6865 (*Map Instructions*).

institutions). The attached Appendix revises the original *Map Instructions* to reflect this relief.<sup>2</sup> The Petition is denied in all other respects.

## II. BACKGROUND

2. On August 23, 2016, the Commission adopted the *Alaska Plan Order (Order)*.<sup>3</sup> The Alaska Plan (Plan) is based on the Alaska Telephone Association (ATA) consensus proposal to freeze \$1.5 billion in funding over ten years and allocate that money to maintain, extend, and upgrade broadband service across certain areas of Alaska.<sup>4</sup> Ultimately, fifteen rate-of-return carriers and eight of their wireless affiliates elected the Plan.<sup>5</sup> While the goal of the *Order* is to provide at least 10/1 Mbps service to as many Alaskans as possible, the *Order* concluded that, due mainly to lack of access to adequate facilities necessary to support last-mile connections, carriers may not be able to serve all of their committed locations at that speed.<sup>6</sup> It therefore permitted carriers to submit commitments at lesser speeds.<sup>7</sup>

3. To track carriers' access to these facilities, the Commission adopted a reporting requirement. The Commission described the data to be collected variously as "backhaul," "middle-mile"

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<sup>2</sup> See Appx., *infra*. The Appendix also reflects additional formatting and wording changes to increase clarity.

<sup>3</sup> *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10158 (2016) (*Alaska Plan Order* or *Order*).

<sup>4</sup> *Alaska Plan Order*, 31 FCC Rcd at 10140, para. 1.

<sup>5</sup> See *Wireless Telecommunications Bureau Approves Performance Plans of the Eight Wireless Providers That Elected to Participate in the Alaska Plan*, Public Notice, 31 FCC Rcd 13317, Appx. (WTB 2016) (*Wireless Commitments Notice*); *Wireline Competition Bureau Authorizes Alaska Plan Support for 13 Alaskan Rate of Return Carriers*, Public Notice, 31 FCC Rcd 13347, Appx. B (WCB 2016) (*Wireline Commitments Notice*).

<sup>6</sup> See, e.g., *Alaska Plan Order*, 31 FCC Rcd at 10158, para. 61 ("A number of Alaska rate-of-return carriers have represented that they cannot offer broadband services at 10/1 Mbps speeds at the present time due to limitations in access to middle mile infrastructure. To the extent such conditions have improved, we delegate authority to the Wireline Competition Bureau to adopt modifications to approved performance plans to ensure that Alaska Plan support is being maximized to offer reasonably comparable services to the carrier's service area."); *id.* at 10172, para. 102 ("[W]e require those Alaska Plan providers that have not already committed to providing 4G LTE at 10/1 Mbps speeds to the population served by the newly available backhaul by the end of the plan term to submit revised performance commitments factoring in the availability of the new backhaul option no later than the due date of the Form 481 in which they have certified that such backhaul became commercially available."). Filers provided the type of middle mile relied upon and were permitted to reduce commitments, based on the middle-mile technology type provided, and all except one provider—OTZ Wireless—has at least a 10/1 Mbps commitment where middle-mile fiber is available. See *Wireless Commitments Notice*, 31 FCC Rcd at 13320-22; *Wireline Commitments Notice*, 31 FCC Rcd at 13351-54.

<sup>7</sup> *Alaska Plan Order*, 31 FCC Rcd at 10146-48, 10167, paras. 17 ("At the same time, we recognize that due to limitations in access to middle mile infrastructure and the variable terrain, Alaskan carriers may not be able to serve all of their locations at the current minimum speeds for Connect America Fund recipients of 10/1 Mbps speeds with the support they are provided through the Alaska Plan. Accordingly, we authorize the Wireline Competition Bureau to approve performance plans that propose to offer Internet service at relaxed speeds to a set number of locations to the extent carriers face such limitations."), 24, 86 ("We expect that Alaska Plan participants will work to extend 4G LTE service to populations who are currently served by 2G or 3G. However, we recognize that there are unique limitations to extending 4G LTE—and in certain locations 3G—in remote Alaska due to infrastructure and the cost of upgraded middle mile. . . . We therefore authorize the Wireless Telecommunications Bureau to approve plans in particular circumstances that may propose not to provide 4G LTE service, but only to maintain service at 2G or 3G or to upgrade to service from 2G to 3G.").

“backhaul and middle mile,”<sup>8</sup> and “fiber network maps [and] microwave network maps.”<sup>9</sup> The Commission required carriers to submit data for such maps “in a format specified by the Bureaus” and to update these maps annually if the carrier deployed such facilities in the prior calendar year “that are or will be used to support their service in eligible areas.”<sup>10</sup> The Commission noted that the maps would assist the Bureaus’ ongoing assessment of carriers’ performance commitments.<sup>11</sup> The Bureaus’ assessment would include a review of any revised performance commitments and service obligations triggered by the carriers’ certification on FCC Form 481 that new “middle-mile” facilities are “commercially available.”<sup>12</sup> Separately, the Commission delegated authority to WTB “to require additional information from . . . individual participants that it deems necessary to establish clear standards for determining whether or not [participating mobile carriers] meet their five- and 10-year commitments.”<sup>13</sup> In addition, WCB is explicitly delegated authority to “monitor carriers . . . closely” and review carriers’ approved performance plans to determine if newly available facilities justify revising current commitments.<sup>14</sup>

4. On September 8, 2017, the Bureaus, pursuant to delegated authority, released the *Map Instructions PN* with the *Map Instructions* attached.<sup>15</sup> The Bureaus required Alaska Plan participants to, pursuant to the *Order*, file maps of their fiber and microwave middle-mile networks that “are or will be used to support their service in eligible areas.”<sup>16</sup> The Bureaus specified that reportable networks consisted of the “links and nodes within Alaska, including undersea cables located within territorial waters, connecting (1) ‘major nodes;’<sup>17</sup> (2) outdoor cell sites; (3) anchor institutions, such as schools, libraries, medical and healthcare providers, community colleges, and other institutions of higher education; and (4) terminating locations of links.”<sup>18</sup> These nodes and links were to be submitted with 7.6-meters of accuracy<sup>19</sup> and were due March 1, 2018, with filings or certifications due annually thereafter for the duration of the Plan.<sup>20</sup> The *Map Instructions PN* observed that “[b]ackhaul’ is a part of the middle-mile infrastructure for the purposes of the *Alaska Plan Order*.”<sup>21</sup>

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<sup>8</sup> See *Alaska Plan Order*, 31 FCC Rcd at 10163, para. 74 (permitting mobile carriers to use support for “improved backhaul and middle mile”).

<sup>9</sup> See, e.g., *Alaska Plan Order*, 31 FCC Rcd at 10156, 10158, 10166, 10172-73, paras. 52-53, 60, 85, 102; 47 CFR §§ 54.313, 54.316, 54.317.

<sup>10</sup> *Alaska Plan Order*, 31 FCC Rcd at 10158, para. 60; see also *id.* at 10172-73, para. 102; 47 CFR § 54.316(a)(6).

<sup>11</sup> *Alaska Plan Order*, 31 FCC Rcd at 10173, 10158, 10172-73, paras. 61-62, 102.

<sup>12</sup> *Alaska Plan Order*, 31 FCC Rcd at 10156, 10172-73, paras. 52, 102.

<sup>13</sup> *Alaska Plan Order*, 31 FCC Rcd at 10166-67, para. 85.

<sup>14</sup> *Alaska Plan Order*, 31 FCC Rcd at 10158, para. 62.

<sup>15</sup> *Alaska Plan Order*, 31 FCC Rcd at 10158, 10172, paras. 60, 102. Pursuant to its delegated authority, the Bureaus provided initial guidance and instructions on September 8, 2017. See *Map Instructions*, 32 FCC Rcd at 6865.

<sup>16</sup> *Map Instructions*, 32 FCC Rcd at 6865; 47 CFR § 54.316(a)(6); *Alaska Plan Order*, 31 FCC Rcd at 10158, 10172-73, paras. 60, 102.

<sup>17</sup> *Map Instructions PN*, 32 FCC Rcd at 6864 (“Major nodes’ comprising an Alaska-Plan provider’s middle-mile network are central offices, cable head ends, mobile switching centers, earth stations, points of presence, landing stations, microwave repeaters, peering points, or Internet gateways within Alaska.”).

<sup>18</sup> *Map Instructions*, 32 FCC Rcd at 6865.

<sup>19</sup> *Map Instructions*, 32 FCC Rcd at 6867.

<sup>20</sup> *Map Instructions PN*, 32 FCC Rcd at 6864.

5. ATA filed a Petition for Reconsideration of the “mapping reporting requirements” on October 10, 2017.<sup>22</sup> The Petition argues that the *Map Instructions* are deficient in several respects, namely: (1) the *Map Instructions* improperly require carriers to submit data on what it asserts are exclusively “last mile” facilities—anchor institutions<sup>23</sup> and cell sites<sup>24</sup>—(2) the level of data accuracy requested is unnecessary to meet the purpose of the collection, and is overly burdensome because it would require completion of additional, costly on-site data collection in a matter of weeks;<sup>25</sup> and (3) the March 1, 2018 deadline is too soon for carriers to collect the necessary on-site data.<sup>26</sup> ATA asserts that cell-site backhaul<sup>27</sup> and anchor institutions and associated links are “last-mile” facilities and should therefore be excluded from the map collection.<sup>28</sup> ATA cites to the Connect America Cost Model (CAM)<sup>29</sup> and a Commission-published technical paper,<sup>30</sup> for the “traditional meaning of the term ‘middle-mile’” which it asserts excludes from that definition all facilities other than connections between and among central offices and Internet gateways.<sup>31</sup> ATA states that “[t]he *Alaska Plan Order* uses the terms ‘middle mile’ and ‘backhaul’” synonymously with both having this “traditional meaning”<sup>32</sup> ATA concludes, based on its cited precedent, that, in seeking the collection of cell-site backhaul and CAI data, “[t]he Bureaus have

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<sup>21</sup> *Map Instructions PN*, 32 FCC Rcd at 6863 n.3 (citing *Alaska Plan Order*, 31 FCC Rcd 10147-48, 10158, 10172-73, paras. 24 (“lack the ability to obtain terrestrial backhaul or satellite backhaul service providing middle mile service . . .”), 60 (“We also adopt a *reporting requirement* for newly deployed *backhaul*. We will require Alaska Plan participants to submit fiber network maps or microwave network maps in a format specified by the Bureaus covering eligible areas and to *update such maps if they have deployed middle-mile facilities* in the prior calendar year that are or will be used to support their service in eligible areas.”) (emphasis added), 102).

<sup>22</sup> Petition at 1.

<sup>23</sup> Petition at 7, 10. ATA states that the Bureaus “[g]o beyond any reasonable interpretation of ‘middle mile’ to include last mile connections to individual end user locations that happen to be a medical office (apparently no matter how small), school, library, or other ‘anchor institution.’” Petition at 7. ATA notes that “if the local school is connected by fiber to the central office, the location of the school must be provided even though that fiber loop has absolutely no bearing on what speeds or capacity the nearby middle mile facilities can support.” Petition at 10.

<sup>24</sup> Petition at 10-11.

<sup>25</sup> Petition at 8, 13-15, Attach. 1 at 2; Attach. 2 at 1-2. ATA argues that the Map Instructions mandate “a level of accuracy completely unnecessary for monitoring middle mile to a *community*, rather than a specific site.” Petition at 2 (emphasis in original).

<sup>26</sup> Petition at 1-2, 7-17.

<sup>27</sup> Consistent with past precedent, by “cell-site backhaul” we mean the “backhaul connection from the cell site to the second point of aggregation.” See OBI Technical Paper #1, 25 FCC Rcd at 6805.

<sup>28</sup> Petition at 7-12.

<sup>29</sup> Petition at 9 n.15, citing *Wireline Competition Bureau Announces Availability of Version 4.1.1 of the Connect America Fund Phase II Cost Model*, Public Notice, 29 FCC Rcd 3884, Attach. (WCB 2014).

<sup>30</sup> Petition at 9 n.16, citing *Connect America Fund et al.*, Notice of Inquiry and Notice of Proposed Rulemaking, 25 FCC Rcd 6657, Appx. C. at 6862 (2010) (OBI Technical Paper #1) (“Middle Mile—Refers generally to the transport and transmission of data communications from the central office, cable headend or wireless switching station to an Internet point of presence.”).

<sup>31</sup> See Petition at 9.

<sup>32</sup> Petition at 8 n.13, 9.

expanded this [traditional meaning] of the term [middle mile] without explanation and beyond the *Alaska Plan Order*.<sup>33</sup>

6. On December 14, 2017, ATA filed an alternative mapping proposal (ATA Proposal) with the Bureaus.<sup>34</sup> The ATA Proposal would allow carriers to submit data at an accuracy within 1000 meters with the first data collection due on August 1, 2018, subject to OMB approval. Under the proposal, other than central office nodes and links, carriers would only report nodes (including anchor institutions and cell sites) and associated links that are “directly connected to transport to a node in a different local exchange or to a node outside local exchange boundaries.”<sup>35</sup> Under this approach, carriers would report cell towers and anchor institutions and associated links only if they fall outside of the boundaries of a telephone exchange.<sup>36</sup>

### III. DISCUSSION

7. We deny ATA’s Petition with respect to its request for the Bureaus to largely forgo the collection of cell-site backhaul and CAI data. Therefore, carriers must submit cell sites and CAIs with their associated links and update that data on a yearly basis as described below.

#### A. Deny the Petition With Respect to Bureaus’ Interpretation of Facilities Data That Must Be Collected

8. As an initial matter, we conclude that ATA’s narrow interpretation of the scope of the initial map collection is contrary to the most reasonable reading of the relevant Commission rule, section 54.316(a)(6).<sup>37</sup> ATA does not address the meaning of this rule in its Petition. The first sentence of that rule does not specifically restrict the map collection to “middle-mile” or “backhaul” facilities and states that carriers “shall submit fiber network maps or microwave network maps covering eligible areas.”<sup>38</sup> The language in the rule’s second sentence, by its terms, states that carriers should provide map updates for “middle-mile” facilities.<sup>39</sup> The rule language should be read in the context of the *Order* and its discussion of the facilities that may affect carriers’ ability to provide 10/1 Mbps service to end-users. Because the *Order* uses multiple terms to describe such facilities, and, as explained below, the presence and quality of cell-site backhaul and connections to many CAIs do in fact affect carriers’ ability to meet their current and future commitments over last-mile facilities, the Commission intended the rule requiring the submission of “fiber network maps or microwave network maps” and “middle mile” data to be read broadly to include cell-site backhaul and CAIs.

9. We note that the WTB also has the authority to collect this same data upon request regardless of whether those facilities fall within the scope of the map collection in section 54.316(a)(6). Specifically, the WTB may request “additional data” regarding facilities relevant to “determining whether or not [participating mobile carriers] meet their five- and 10-year commitments.”<sup>40</sup> Carriers’ performance commitments are broken down and differentiated by the type of facilities (satellite, fiber, fixed wireless)

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<sup>33</sup> Petition at 9.

<sup>34</sup> See Letter of Julie A. Veach, Counsel to General Communications Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-271, Attach. 1&2 (ATA Proposal).

<sup>35</sup> See ATA Proposal, Attach. 1&2.

<sup>36</sup> See ATA Proposal, Attach. 1&2.

<sup>37</sup> See 47 CFR § 54.316(a)(6).

<sup>38</sup> 47 CFR § 54.316(a)(6).

<sup>39</sup> 47 CFR § 54.316(a)(6).

<sup>40</sup> *Alaska Plan Order*, 31 FCC Rcd at 10166-67, para. 85.

supporting the committed speed and technology (e.g., LTE) of the last-mile connections serving particular end-user populations.<sup>41</sup> Information regarding the location of cell-site backhaul, CAIs and associated links may be collected by the WTB upon request because they are necessary to determining whether carriers' differentiated commitments are or could be met.<sup>42</sup>

10. *Cell-Site Backhaul.* Notwithstanding the obligation of carriers to submit cell-site backhaul data pursuant to the plain meaning of section 54.316(a)(6), ATA's position that the map collection is restricted to "middle-mile" facilities as defined in the CAM rests on an incorrect reading of the *Order*. The *Alaska Plan Order* does not, as ATA argues, define "middle-mile" and/or "backhaul" to mean solely the connection between central offices.<sup>43</sup> Rather, these terms are used to describe the entire connection between the last mile and Internet gateway. A cell-site backhaul facility is a subset of this connection.

11. The Commission adopted a more expansive meaning of these terms in the *Alaska Plan Order* to enable it to identify the "weak-links" in carriers' networks that affect carriers' current and future commitments.<sup>44</sup> As noted in the OBI Technical Paper #1 that ATA cites, cell-site backhaul *and* connections between central offices "can quickly become the choke point" and "adequate [cell-site] backhaul is one of the key drivers for providing wireless broadband."<sup>45</sup> We agree with ATA that high-capacity connections between central offices are relevant to an assessment of whether carriers can meet their commitments to end-users within the exchanges served by those central offices.<sup>46</sup> Such high capacity connections are not, however, sufficient for such an assessment.<sup>47</sup>

12. ATA also does not explain why cell-site backhaul should be considered "last mile" and therefore excluded from the collection.<sup>48</sup> Indeed, as ATA acknowledges,<sup>49</sup> the ordinary meaning of "backhaul," in the wireless context refers to the "connections that link a mobile wireless service provider's cell sites to the mobile switching centers . . . ."<sup>50</sup> On the other hand, a "last mile" facility is the connection from the end-user's handset or terminal to the "first point of aggregation," such as a "wireless

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<sup>41</sup> *Wireless Commitments Notice*, 31 FCC Rcd 13317, Appx. at 13320-23; *Wireline Commitments Notice*, 31 FCC Rcd 13347, Appx. B at 13351-53.

<sup>42</sup> For example, such data informs whether and to what extent a carrier's LTE coverage meets its commitment for a fiber-fed or satellite-fed population. *See, e.g., Wireless Commitments Notice*, Appx. at 13322 (showing GCI's commitment of serving 118,616 people with LTE at the ten-year mark—of which 64,158 will be fiber-fed; 42,095, microwave-fed; and 12,363, satellite-fed); *see also Alaska Plan Order*, 31 FCC Rcd at 10166-67, para. 85 (requiring commitments be broken out by each type of middle mile).

<sup>43</sup> *See* Petition at 8 n.13.

<sup>44</sup> *See, e.g., Map Instructions PN*, 32 FCC Rcd at 6863 n.3.

<sup>45</sup> OBI Technical Paper #1, 25 FCC Rcd at 6803.

<sup>46</sup> Petition at 9-11.

<sup>47</sup> *See, e.g., OBI Technical Paper #1*, 25 FCC Rcd at 6845 (stating that such an assessment underestimates the presence of nationwide middle mile fiber).

<sup>48</sup> *See* Petition at 9-12.

<sup>49</sup> ATA PRA 30-Day Comments at 13-14 ("Second, while the term 'backhaul' is commonly used to refer to the connection between cell towers and the next point of aggregation, that is not clearly the use of the term in the *Alaska Plan Order*, which refers to 'backhaul' interchangeably with 'middle mile' and with regard to both mobile and wireline infrastructure.").

<sup>50</sup> *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Twentieth Report, 32 FCC Rcd 8968, 8998, n.135 (2017).

tower location.”<sup>51</sup> *The Map Instructions* do not require the submission of the “last-mile” wireless end-users’ location data.

13. The *Alaska Plan Order* requirement for carriers to submit data regarding facilities that lie between the “last mile” and the “Internet gateway” is also consistent with the logical structure of the *Alaska Plan Order* itself. The *Order* describes carriers’ networks as a three-part model. Specifically, the *Order* separately describes the (1) “last mile”—reflected in the bandwidth and price commitments provided to consumers via wired and wireless facilities and, for wireless commitments, the last-mile wireless technology to be deployed, such as LTE<sup>52</sup>—(2) “middle mile” and/or “backhaul” facilities which connect last mile facilities to the Internet gateway and affect the ability of the carrier to meet its last-mile commitments; and (3) the Internet gateway and the Internet beyond.<sup>53</sup> Under this three-part model, network components other than (1) or (3) and which can affect the ability of the carrier to meet its last mile commitments are (2): “middle mile” and/or “backhaul.” As explained, because cell-site backhaul is not considered “last mile” for purposes of this map filing requirement and is clearly not the “Internet gateway,” it must be “middle mile” and/or “backhaul.”

14. This broad meaning of “middle mile” and “backhaul” is also consistent with the common understanding of these terms in the wireless industry and has been adopted by the Petitioner in other contexts. For example, ATA member GCI, in providing a cost model for wireless facilities in Alaska, used the term “backhaul” to describe both (1) “cell-site backhaul” and (2) the connection to central “hubs” in three Alaskan cities.<sup>54</sup> In that instance, GCI stated that the quality of the last-mile connection is dependent on the robustness of both (1) and (2) and argued that the cost of upgrading both segments is a barrier to providing higher speed last-mile services to Alaskan end-users.<sup>55</sup>

## **B. Grant the Petition in Part**

15. We grant the Petition in part to the extent it seeks relief from the March 1, 2018 deadline, and the 7.6-meter accuracy requirement. By providing this relief, we allow carriers limited flexibility and

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<sup>51</sup> OBI Technical Paper #1, 25 FCC Rcd at 6802-10 (discussing “second mile backhaul” where backhaul is synonymous with the second mile), 6843 (showing the last mile as from the cell site to the handset; showing the “second mile” as the cell site to the mobile switching center), 6861 (defining “last mile” as generally ending at the first point of aggregation), 6863 (defining “second mile” as generally beginning at the first point of aggregation, such as a wireless tower).

<sup>52</sup> *Wireless Commitments Notice*, 31 FCC Rcd, Appx. at 13320-23 (providing a Form 477 technology code—e.g., 83, which is LTE—for a carrier’s last-mile deployment commitment).

<sup>53</sup> See *Alaska Plan Order*, 31 FCC Rcd at 10146-48, 10156, 10158, 10165-67, 10172, paras. 17, 24, 52, 60-61, 81-86, 102; see also *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 Of the Telecommunications Act of 1996*, Second Report, 15 FCC Rcd 20913, 20926, para. 23 (2000) (“Middle mile facilities provide transport or routing from last mile aggregation points in order to interconnect and exchange traffic with national backbone providers or directly with other middle mile networks. It appears that most fiber optic, middle-mile facilities, like backbone, exist along public rights of way. Other middle miles include fixed wireless and satellite links.”); see also *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in Reasonable and Timely Fashion, Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of Telecommunications Act of 1996*, Third Report, 17 FCC Rcd 2844, 2854 (2002).

<sup>54</sup> Specifically, “backhaul” in GCI’s proposed “Alaska Broadband Cost Model” is defined as the connection between the cell site and the “hubs” in Anchorage, Juneau and Fairbanks. Letter from John T. Nakahata, Counsel to General Communication, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. at 11 (filed Feb. 10, 2013) (Brattle Group Study) (study describing backhaul costs in Alaska).

<sup>55</sup> Brattle Group Study at 4, 9, 11-13.

time to submit data in a way that takes into consideration the particular challenges carriers in Alaska face (e.g., difficult seasonal weather) while also ensuring the Commission is provided with the data it required for implementing the Plan. We also clarify the obligation to report data with respect to CAIs. The Petition is denied in all other respects.

16. *Deadline Extension.* The Bureaus grant the Petition to the extent that it seeks a deadline extension<sup>56</sup> and extend the filing deadline for the initial map data submission from March 1, 2018, to July 1, 2018.<sup>57</sup> On February 1, 2018, the Office of Management and Budget approved the collection under the Paperwork Reduction Act (PRA) and the rules became effective on February 15, 2018.<sup>58</sup> We find that an extension of the deadline under section 54.316 is appropriate in this case because a July 1, 2018 deadline will ensure that carriers will have sufficient time following the recent PRA approval to finalize any data submitted into the High Cost Universal Service Broadband (HUBB) portal and aligns with the Form 481 filing deadline.<sup>59</sup> Additionally, carriers are submitting middle-mile data to the HUBB portal for the first time, and carriers and USAC may need additional time to address any problems or concerns that may arise at the time of filing.<sup>60</sup> This extension will also allow carriers additional time to gather as accurate data as possible in the first filing cycle. Alaska Plan participants will now have nearly ten months of preparation time to gather and submit the data from the release of the initial *Map Instructions*.<sup>61</sup> This extension does not affect the filing deadline in subsequent years or the March 1, 2018 deadline for the submission of Alaska wireline location data.<sup>62</sup>

17. *Accuracy.* We grant in part and deny in part ATA's request to collect and submit data at a lower level of accuracy than 7.6 meters. Specifically, we permit carriers to collect and submit "estimated" data to within 50 meters of accuracy for the filing due by July 1, 2018 where data at 7.6 meters is unavailable. This relief is appropriate given the recent effective date of the data collection in February combined with the challenging weather conditions in Alaska, and the fact that "estimated" data

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<sup>56</sup> Petition at 16-17; *see also* ATA Proposal, Attach. 1 at 2.

<sup>57</sup> *See Alaska Plan Order*, 31 FCC Rcd at 10157, para. 58, n.114 (delegating authority to the Wireline Competition Bureau to extend the deadlines of 47 CFR § 54.316 as needed for administrative convenience); *see also, e.g., Connect America Fund*, Order, 32 FCC Rcd 1445 (WCB 2017) (extending HUBB portal filing deadline for carriers filing for the first time); *Annual International Traffic and Revenue Data As of December 31, 2014 Must Be Filed Using the Section 43.62 Online Filing System From August 17, 2015 to September 30, 2015*, Public Notice, 30 FCC Rcd 8257 (IB 2015) (providing similar bureau-level deadline extension through a public notice in the absence of a specific delegation by the Commission).

<sup>58</sup> *See* Notice of Office of Management and Budget Action, OMB Control No. 3060-1228 (approved Feb. 1, 2018), [https://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=201711-3060-008](https://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201711-3060-008); FCC, *Connect America Fund*, 83 Fed. Reg. 6796 (Feb. 15, 2018).

<sup>59</sup> *See* 47 CFR § 54.313(j). For this reason, and because the relief we provide elsewhere will permit carriers to more easily collect and submit information for the 2018 filing, we reject the request in the ATA Proposal for an extension until August 1. ATA Proposal, Attach. 1 at 2.

<sup>60</sup> We remind carriers that they have an obligation to, in good faith and to the best of their knowledge, file complete and accurate information in the HUBB portal in a timely manner, and failure to do so may subject the carrier to penalties. 47 CFR §§ 54.316, 54.320(c); *see also* 47 CFR § 1.17(a)(2) (stating that no person may provide, in any written statement of fact "material factual information that is incorrect or omit material information that is necessary to prevent any material factual statement that is made from being incorrect or misleading without a reasonable basis for believing that any such material factual statement is correct and not misleading.").

<sup>61</sup> The Bureaus released initial guidance and instructions on September 8, 2017. *Map Instructions PN*, 32 FCC Rcd at 6863, Appx. at 6865.

<sup>62</sup> USAC will notify Alaska Plan recipients when the HUBB portal is ready to accept reportable information.

(in the limited cases where 7.6-meter data is unavailable) for the 2018 submission will not inhibit efforts of the Bureaus to implement the Plan.

18. The Bureaus have authority to set an accuracy threshold in the instructions. Indeed, ATA submitted its own, alternative 1000-meter threshold.<sup>63</sup> The Commission delegated to the Bureaus the authority to provide a common format for map submissions, which necessarily includes a mutually understood accuracy standard. Maps cannot be properly evaluated without a mutually understood and agreed upon accuracy standard.<sup>64</sup> As explained below, both the 50-meter and 7.6-meter accuracy standards meet that test.

19. We conclude that, on balance, the overall benefit of the data accuracy requirements, as modified here, outweighs any burden on carriers.<sup>65</sup> While the Bureaus need to and will, under these modified instructions, obtain data accurate to 7.6 meters by 2019, the relief we provide will greatly reduce carriers' burden to collect that data. A one-year delay in providing data at a 7.6-meter level of accuracy should allow ATA members to collect and submit estimated data using desktop software while largely allowing the collection of more accurate data through site visits as necessary in the normal course of business. Carrier estimated data, combined with 7.6-meter data already in the carriers' possession, are sufficient for the Bureaus to assess carriers' compliance, infrastructure limitations, and progress at the initial stages of the first five-year plan.<sup>66</sup>

20. For the filings due in 2018, carriers may provide an initial "estimate" for nodes and links based on data generated by generally available desktop software. Where a carrier lacks sufficient internal digital data to comply with the 7.6-meter accuracy requirement for all or a portion of its filed network facilities, that carrier may submit estimated data at least as accurate as Google Earth (i.e., accurate to within 50 meters)<sup>67</sup> and denote as estimates the relevant portion(s) of the network submitted. Where the carrier chooses to provide an estimate, it must certify in the HUBB portal, at the time of filing, that it does not possess data meeting the 7.6-meter requirement. Carriers must update any such estimated data no later than their filing due March 1, 2019, with data meeting the 7.6-meter requirement. Similarly, any

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<sup>63</sup> See ATA Proposal, Attach. 1&2.

<sup>64</sup> Multiple accuracy standards could result in an incorrect interpretation of data in instances where carriers share facilities. A single shared facility could appear to be two distinct facilities located near each other. While buffering techniques could help account for such occurrences, the result would treat all data at the lesser degree of accuracy. This would effectively create a single standard of accuracy at a lower standard, which we reject below.

<sup>65</sup> See Appx. at Parts II, III, *infra* (explaining the 7.6-meter accuracy requirement but allowing provision estimates for one year). The original instructions did not explicitly provide the accuracy requirement in the node section of the instructions. As ATA understands, however, the 7.6-meter accuracy standard applies to nodes as well. ATA Petition, Decl. of Jimmy Sipes, para. 5 (discussing needing to meet the 7.6-meter accuracy requirement for "all of its cell sites"); ATA 30-Day PRA Comments at 5-6 n.9 ("The [7.6-meter] standard refers to 'lines' but as ATA understands it, it must also necessary apply to the nodes that define those lines."). We correct the omission in this update.

<sup>66</sup> See 47 CFR § 54.317(f); *Alaska Plan Order*, 31 FCC Rcd at 10158, 10167, para. 61 & n.174.

<sup>67</sup> Google Earth is accurate up to 7.6 meters in many circumstances. However, in some cases, Google Earth may only be accurate up to 30-50 meters. Cf. Cutberto Paredes-Hernandez *et al.*, *Horizontal Positional Accuracy of Google Earth's Imagery Over Rural Areas, A Study Case in Tamaulipas Mexico*, 19 Boletim de Ciencias Geodesicas 587-601 (2013), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.866.9228&rep=rep1&type=pdf>. For compliance with the instructions, Google Earth meets that level of accuracy. Carriers are not required to use Google Earth, but carriers should ensure that alternative software is accurate to 50 meters or better.

new data submitted starting in March 1, 2019<sup>68</sup> (i.e., for network facilities deployed in 2018) and in subsequent filing years must meet the 7.6-meter accuracy requirement. If a carrier currently has internal digital data in its possession for facilities deployed in 2017 or earlier that meet the accuracy requirement, it must file that data by July 1, 2018.<sup>69</sup>

21. We reject ATA's contention that information at the 7.6-meter level of accuracy is not necessary for the purposes of the map collection.<sup>70</sup> The Bureaus' review of revised performance plans in 2020 alongside maps accurate to 7.6 meters provides an important backstop to ensure carriers maximize their commitments and service levels to Alaskans. The 7.6-meter standard is critical for obtaining a complete picture of facilities' locations in relation to other existing data. It is a commonly-used mapping standard for Commission high-cost data,<sup>71</sup> is necessary for the Bureaus to maintain compatibility with census boundary and road data for the census-block based Alaska Plan,<sup>72</sup> and will allow the Bureau to fully identify duplicative facilities.<sup>73</sup>

22. Even in the absence of the relief provided here, we reject ATA's argument that the burden of the 7.6-meter standard outweighs the benefit because ATA has not adequately demonstrated the scope of its burden to collect such information. ATA's evidence that the 7.6-meter level of accuracy is too burdensome largely relies on two carrier-employee declarations, stating that *not all* of their data is stored at the 7.6-meter accuracy level.<sup>74</sup> ATA also notes that the FAA requires collection of some cell tower information at a 6.1 meter accuracy level.<sup>75</sup> Moreover, all of Alaska has wide area augmentation system (WAAS) coverage 100 percent of the time with the exception of the southwestern most Aleutian

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<sup>68</sup> This date ensures that the Bureaus will have accurate information regarding middle-mile network limitations by the time of the four-year updates. See *Alaska Plan Order*, 31 FCC Rcd at 10158, 10167, para. 61 & n.174.

<sup>69</sup> Alternatively, if the filer does not possess digital data for some of its nodes and links by the time of its initial submission, it may provide estimates as discussed. Because carriers will have had over a year to obtain data at the 7.6-meter accuracy level, we anticipate that it is unlikely carriers will need to incur significant expense sending technicians to remote sites for the sole purpose of acquiring information consistent with this collection. See ATA Petition, Decl. of Jimmy Sipes, para. 5.

<sup>70</sup> Petition at 7-8, 10.

<sup>71</sup> For example, the HUBB portal uses the 7.6-meter accuracy standard to take into account the inherent error in census block boundary measurements. See USAC, HUBB Frequently Asked Questions 4-5 (2017) (discussing use of the 7.6-meter HUBB portal buffer and Census use of the standard generally), [http://www.usac.org/\\_res/documents/hc/pdf/tools/Hc-HUBB-FAQ.pdf](http://www.usac.org/_res/documents/hc/pdf/tools/Hc-HUBB-FAQ.pdf).

<sup>72</sup> See generally *Alaska Plan Order*, 31 FCC Rcd 10139 (basing eligibility and geographic analysis at the census block level).

<sup>73</sup> In order to ease the filing burden, we permit, but do not require, a rate-of-return carrier to file on behalf of its mobile affiliate. See "Who Must Submit Data," Appx., *infra*. When affiliates file separately, there is an increased likelihood that duplicative data will be filed. Moreover, filers that are leasing facilities may lease from an owner that is also an Alaska Plan participant and their data may overlap. See "Ownership" field in the Links and Nodes sections, Appx., *infra*.

<sup>74</sup> Petition, Attach. 1 at 2; Attach. 2 at 1. The ATA declarants state that, to satisfy the requirement, it could cost \$10,000 or more to travel to remote villages. In its OMB filing, ATA provides more context stating that "the cost of the initial data gathering is likely to average between \$10,000 to \$80,000 per provider or more." In this figure, ATA includes \$10,000 to \$20,000 for GIS consultants to find information not related to the accuracy level, "such as what year a link went live, connection speeds, and other facts." ATA 30-Day PRA Comments at 20.

<sup>75</sup> ATA 30-Day PRA Comments at 17.

Islands, which has this coverage at least 95 percent of the time, allowing use by non-expert personnel of inexpensive handheld devices accurate up to three meters.<sup>76</sup>

23. For similar reasons, we also reject ATA's counter-proposal that the Bureaus collect data at the 1000-meter accuracy level.<sup>77</sup> ATA's proposed standard is far too inaccurate for the map data collection, as two filers filing the same node could show that node to be more than a mile apart from each other, which could significantly affect Bureaus' understanding of which census blocks have what facilities and what facilities are duplicates. Moreover, as noted, generally available desktop applications provide sufficient accuracy to meet the 50-meter estimate standard described above.

24. *Community Anchor Institutions.* We grant the Petition in part to clarify the collection of CAI data. We clarify that carriers need only submit those CAIs and associated links that fall within the statutory definition of a CAI. Furthermore, in the initial collection due July 1, 2018, carriers must submit all CAIs served by fiber or wireless connections. In subsequent years, carriers must submit any additional CAIs and associated links served by fiber or wireless connections that are being used or will be used to support their service in eligible areas. To the extent that CAI data does not fall under these limiting criteria, it is not reportable. We otherwise deny the Petition with respect to ATA's request to limit the submission of CAI data.

25. First, we grant the Petition in part to clarify that reportable CAIs are limited to those CAIs that fall within the definition of CAI in 47 U.S.C. § 1305(b)(3)(A) that the Commission adopted in the *USF/ICC Transformation Order*.<sup>78</sup> As such, this data collection is limited to the type of CAIs that carriers would report pursuant to 47 CFR § 54.313(f)(1)(ii).<sup>79</sup> Because rate-of-return carriers are already reporting the addresses of many of these CAIs on their FCC Form 481, carriers may face a reduced burden when submitting latitude and longitude of these same CAIs and the links connecting these institutions to other nodes in the their networks for mapping purposes.<sup>80</sup>

26. Second, consistent with the *Alaska Plan Order*, we make clear that in the initial collection, carriers must submit data regarding any CAIs served by fiber or wireless connections. This

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<sup>76</sup> See USGS Global Positioning Application and Practice, <https://water.usgs.gov/osw/gps/> (discussing these commercial grade handheld devices); FAA, WAAS LPV Coverage Contours, [http://www.nstb.tc.faa.gov/24Hr\\_WaasLPV.htm](http://www.nstb.tc.faa.gov/24Hr_WaasLPV.htm) (providing updated WAAS coverage every 24 hours).

<sup>77</sup> See ATA Proposal, Attach. 1.

<sup>78</sup> See *Connect America Fund et al.*, WC Docket Nos. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17681, 17822, n.37 (2011); *aff'd sub nom.*, *In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014) ("We note that '[c]ommunity anchor institutions' as defined in the Recovery Act include schools, libraries, medical and healthcare providers, community colleges and other institutions of higher education, and other community support organizations and entities. See 47 U.S.C. § 1305(b)(3)(A). We adopt that definition for purposes of these rules."); see also 47 U.S.C. § 1305(b)(3)(A); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115, 128, 512-13. The Broadband Technology Opportunities Program (BTOP) resulting from 47 U.S.C. § 1305(b)(3)(A) focused on extending "middle mile infrastructure" comprised in large part by connecting these CAI as middle-mile nodes. See NTIA, Broadband Technology Opportunities Program: Frequently Asked Questions 4 (May 28, 2010), [https://www2.ntia.doc.gov/files/nofa2\\_faqs\\_5\\_28\\_10.pdf](https://www2.ntia.doc.gov/files/nofa2_faqs_5_28_10.pdf); see also, e.g., American Fiber Systems, Broadband USA Applications Database, Executive Summary (applying for a "BTOP Middle Mile Infrastructure" funding by predominantly connecting 44 CAIs).

<sup>79</sup> See 47 CFR § 54.313(f)(1)(ii). The type of CAI is not limited to those deployed to after July 1, 2015. See 47 CFR § 54.313(f)(1). The reporting would include any Tribal CAIs subject to 47 CFR § 54.313(a)(5)(i) (requiring carriers serving Tribal lands to, among other things, discuss with Tribal governments that included a focus on Tribal community anchor institutions).

<sup>80</sup> See 47 CFR § 54.313(f)(1)(ii).

limitation is consistent with the plain language of section 54.316(a)(6), which states that Alaska Plan participants “shall submit fiber network maps or microwave network maps covering eligible areas”<sup>81</sup> for the purpose of tracking carriers’ access to these facilities that would allow them to provide 10/1 Mbps for all Alaskans.<sup>82</sup> In subsequent years, carriers must submit CAIs served by connections that “are or will be used” to support service in their eligible areas.<sup>83</sup> This would include, at a minimum, those instances where the carrier has actual plans to use the CAI and links to extend the network.<sup>84</sup> CAIs served by connections that “are or will be used” in this manner are in fact “middle mile” and/or “backhaul” within the meaning of the *Alaska Plan Order* and are therefore subject to collection.<sup>85</sup> CAIs connected to high-capacity links may be used to expand service to underserved and unserved communities.<sup>86</sup> Consequently, information regarding CAIs connected by such facilities is necessary for the Commission to understand whether adequate facilities exist to support additional last-mile connections and for the evaluation of carriers’ performance—consistent with the purpose of the map collection.<sup>87</sup>

27. We deny ATA’s Petition to the extent it seeks to exclude the reporting of CAIs which meet these criteria. ATA argues that all CAIs are “last-mile” facilities and therefore should not be part of the map collection except in limited circumstances.<sup>88</sup> ATA’s position is not consistent with the *Alaska Plan Order*. ATA argues that the Bureaus’ reliance on aggregation points to justify reporting some nodes “proves too much” because a “home’s or business’s Wi-Fi router is an initial aggregation point.”<sup>89</sup> But ATA’s argument contravenes its own cited precedent, which separates the network based on points of traffic aggregation with similar network demand.<sup>90</sup> In many instances, CAIs’ position in carriers’ network architecture is more akin to wireless towers aggregating community-wide traffic than a last-mile

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<sup>81</sup> 47 CFR § 54.316(a)(6); *Alaska Plan Order*, 31 FCC Rcd at 10166, para. 85 (delegating to the WTB authority to require additional information that it deems necessary to establish clear standards for determining whether or not participants are meeting their five- and 10-year commitments).

<sup>82</sup> See *supra* paras. 2-3.

<sup>83</sup> 47 CFR § 54.316(a)(6); *Alaska Plan Order*, 31 FCC Rcd at 10158, 10172, paras. 60, 102.

<sup>84</sup> See *Alaska Plan Order*, 31 FCC Rcd 10173, para. 102.

<sup>85</sup> See *supra* paras. 3, 8-9, 13.

<sup>86</sup> See, e.g., Centennial Board of Cooperative Educational Services, BTOP Application 7-8, 11-12, 15, 31-33 (successfully applying for Middle Mile grant that could provide high-capacity middle mile network that would connect CAIs and then also be used by last mile providers to provide service in nearby unserved and underserved areas), 37 (“Each Community Anchor point will become a point of interconnection for access to the Middle Mile backhaul bandwidth by Last Mile and other Carrier Services for delivery of Tier 1 commodity Internet service.”) (filed Mar. 26, 2010). The BTOP program funded middle-mile infrastructure that connected CAIs to high-capacity links, in order to facilitate those links being used to extend service to the unserved and underserved locations those CAIs were located in. NTIA, BTOP, 75 Fed. Reg. 3792, 3794-95 (2010) (distinguishing last mile and middle mile and discussing middle-mile connectivity to CAIs in order facilitate last mile broadband to unserved and underserved areas).

<sup>87</sup> See *supra* paras. 8-9 (discussing what information the carriers are required to submit). All CAIs, regardless of size, are excluded from HUBB portal location collection. Therefore, CAIs will not be double-counted. *Wireline Competition Bureau Provides Guidance to Carriers Receiving Connect America Fund Support Regarding Their Broadband Location Reporting Obligations*, Public Notice, 31 FCC Rcd 12900, 12905 (WCB 2016).

<sup>88</sup> See Petition at 1-2, 7, 10; ATA Proposal, Attach. 2.

<sup>89</sup> Petition at 11.

<sup>90</sup> OBI Technical Paper #1, 25 FCC Rcd at 6787, 6805 (dividing the network by aggregation nodes); Alternative Connect America Cost Model (ACAM) v.2.3.1 at 19 (rev. Aug. 12, 2016), [https://transition.fcc.gov/wcb/Model%20MethodologyACAM\\_2\\_3\\_1%20-%20Final.pdf](https://transition.fcc.gov/wcb/Model%20MethodologyACAM_2_3_1%20-%20Final.pdf).

home or smartphone user. Indeed, ATA provides a conceptual network map in its Petition equating schools with wireless towers.<sup>91</sup> This model and the ACAM are consistent with the understanding that both a CAI and a wireless tower can and do aggregate community-wide multi-user traffic.<sup>92</sup> In contrast, a home or small business Wi-Fi router typically serves a single end-user location with only a handful of end-users, and it does not aggregate community-wide multi-user traffic.<sup>93</sup>

28. In light of the foregoing discussion, we reject ATA's counter-proposal to limit the collection of nodes to cell towers and CAIs that are outside of the exchange but connect to a central office in another exchange.<sup>94</sup> In part because of the vast size of many exchanges in Alaska, knowing whether the central office in an exchange is fiber-fed does not provide a sufficiently granular picture of the potential middle-mile "weak points" or capabilities that could affect the ability of a carrier to meet its commitments or future commitments.<sup>95</sup>

#### IV. ORDERING CLAUSES

29. Accordingly, IT IS ORDERED, pursuant to the authority contained in sections 1-4 and 254 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154 and 254, and sections 0.91, 0.131, 0.291, 0.311, and 1.106 of the Commission's rules, 47 CFR §§ 0.91, 0.131, 0.291, 0.311, and 1.106, and the delegated authority contained in the *Alaska Plan Order*, 31 FCC Rcd 10139, 10158, 10166, 10172-73, paras. 60, 85, 102, that ATA's Petition for Reconsideration is GRANTED IN PART AND DENIED IN PART, to the extent provided herein.

30. IT IS FURTHER ORDERED that pursuant to section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1), this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kris Anne Monteith  
Chief  
Wireline Competition Bureau

Donald Stockdale  
Chief  
Wireless Telecommunications Bureau

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<sup>91</sup> Petition at 5.

<sup>92</sup> See ACAM v.2.3.1 at 21-22 (equating the demand between CAIs and wireless towers and removing them from the cost model); see also ATA Petition at 7-8 (arguing that the map's purpose is to understand connectivity at the community-level).

<sup>93</sup> ATA also argues that the collection would include towers and CAIs where people may not live. See, e.g., Petition at 11. But, the ATA Proposal seems to emphasize supplying only the most remote towers and CAIs for the purpose of this collection. See ATA Proposal, Attach. 2.

<sup>94</sup> ATA Proposal, Attach. 1&2.

<sup>95</sup> See *Connect America Fund et al.*, Order On Reconsideration, WC Docket No. 10-90 *et al.*, 28 FCC Rcd 1489 (WCB 2013) (finalizing carrier reporting of study area and exchange boundaries).

## APPENDIX

UPDATED FORMAT FOR FIBER OR MICROWAVE  
NETWORK MAP SUBMISSIONS FOR ALASKA PLAN PARTICIPANTS

## I. GENERAL INFORMATION

The *Alaska Plan Order* requires Alaska Plan funding recipients to submit fiber network maps or microwave network maps covering eligible areas and to update such maps if they have deployed middle-mile facilities in the prior calendar year that are or will be used to support their service in eligible areas. This information will be helpful to the Commission's ongoing assessment of the performance commitments of the recipients.

## A. What Information Is Being Collected

Reportable links and nodes are fiber and microwave links, including undersea cables located within territorial waters, covering, are supporting, or will be used to support service in eligible areas, within Alaska connecting (1) "major nodes"; (2) outdoor cell sites; (3) reportable community anchor institutions; and (4) terminating locations of links.<sup>96</sup>

## B. Who Must Submit Data

Each rate-of-return carrier and each mobile provider that is authorized to receive Alaska Plan support must file the data for these maps.

Rate-of-return Alaska Plan participants that have a mobile-provider wireless affiliate receiving support under the Alaska Plan may—but are not required to—file information on behalf of both the wireline carrier and the wireless carrier. Where the mobile affiliate chooses to file separately from its wireline affiliate, the mobile affiliate must obtain its own Admin Study Area Code (SAC). Affiliated carriers should avoid submitting duplicate information about the network where possible. Alaska Plan participants may file a separate map for each Admin SAC, so long as the combined map reflects a complete reportable map for the company. Each company should consider how it is most convenient for them to file its updates in subsequent years when determining whether it should separate out some of its SAC numbers for a separate filing.

For these instructions, "filer" means the Alaska-Plan-participant company that is having its data filed or a representative filing data on behalf of the company.

## C. How to Submit the Data

Filers must submit data via the High Cost Universal Service Broadband (HUBB) portal. This is the same electronic portal used to collect location data for newly deployed/upgraded locations. Once the HUBB portal is opened to filers, Alaska Plan carriers can log into and upload the data into the HUBB portal in accordance with the instructions. An officer of the company must certify that the information is accurate and complete. If some data are provided as an estimate in the initial filing, the officer must separately certify that such data at the 7.6-meter accuracy requirement were unavailable at that level of accuracy at the time of the filing.

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<sup>96</sup> See Order Sec. III.B, *supra*, discussion of reportable community anchor institution nodes and associated links.

The Commission or the Universal Service Administrative Company (USAC) may contact the carriers concerning any errors in the data submission; such errors must be corrected by the carriers within a reasonable time.

#### **D. When to Submit Data**

The first set of ESRI Shapefiles, CSV files, and certifications responsive to this data request are due July 1, 2018<sup>97</sup> and every subsequent March 1 of every year throughout the duration of the Alaska Plan. USAC will provide notice to Alaska Plan carriers once the HUBB portal is ready to accept data.

Submission of data in subsequent years need only be made if changes (i.e., additions, subtractions, and alterations to the data on file) occur to the network or the carrier is updating any estimated data with data at the required accuracy level.<sup>98</sup> Comprehensive maps—with information for the complete reportable network—should be resubmitted by March 1 of the year following any network changes. If there are no changes to the network for the prior year, the company must so certify by the March 1 deadline. All estimated data submitted in 2018 must be provided at the required accuracy level by the March 1, 2019 filing deadline.<sup>99</sup>

Carriers concerned with the accuracy of their data or have other concerns with their data should contact Ying Ke—ying.ke@fcc.gov; 202-418-0943—well before the filing deadline and be prepared to submit the digital data that they do have.

#### **E. Confidentiality**

The location of companies' links and nodes are likely to contain confidential data. Accordingly, this data filing will use an abbreviated means to allow submitters to request confidentiality, consistent with 47 CFR § 0.459(a)(4). Filing material for this data collection will be deemed to be a request under section 0.459 that the material not be made publicly available.

## **II. NETWORK LINKS**

Alaska Plan participants are required to file maps of their fiber or microwave links covering eligible areas and update such maps if the participant deploys middle-mile facilities in the prior calendar year that are or will be used to support service in eligible areas.

These fiber links and microwave links are those lengths of lit fiber or microwave with terminating equipment on both ends. Microwave links include all terrestrial fixed-wireless links used for backhaul. Installed fiber links that are inactive (dark fiber) should also be provided, and the terminating location of the dark fiber link must be provided regardless of whether there is terminating equipment at that location.

Alaska Plan participants should include those fiber/microwave links that they (i) own or (ii) lease.

Filing Guidance for Links:

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<sup>97</sup> See Order, *supra*.

<sup>98</sup> See Order, *supra* (discussing accuracy).

<sup>99</sup> See Order, *supra* (discussing accuracy).

- Filers must submit information as a compressed separate ESRI Shapefile using a line-feature class containing the data for each feature as noted below. Filers should only submit one shapefile per filing year. The shapefile can be edited until a representative of the carrier certifies that the filing is complete and accurate.
- Shapefiles should be submitted as an unprojected (geographic) WGS84 geographic coordinate system with latitude/longitude coordinates in double precision.
- The horizontal (latitude and longitude) accuracy of lines must meet National Standard for Spatial Data Accuracy: accurate to within 7.6m CE95 (FGDC-STD-007, 3-1998), or labeled as an “estimate,” as indicated below. Lessees that do not know the location of the link have the option of providing conceptual depictions of the link.
- Maps must be accompanied by metadata, or a plain text “readme” file, that contains a comprehensive explanation of the methodology employed to generate the map layer including any necessary assumptions and an assessment of the accuracy of the finished product.
- The file should be compressed to a .zip. Be sure that your .zip file contains one and only one shapefile. The folder and all files within should be named with the (1) Admin SAC number in filing, (2) underscore, and (3) year that the information is filed (e.g., 613000\_2018).

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**Shapefile Record Format for Fiber/Microwave Links**

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Field Name	Description	Type	Length	Example
SAC Number	Admin Study Area Code that amounts to a unique identifier for each Alaska Plan filer	Text	6	613000
Carrier	D/B/A Carrier Name(s)	Text	255	ABC Wired; ABC Cellular
ID	Sequential record number	Long		1
TypeofLink	Provide whether the link is microwave (M), lit fiber (F), or dark fiber (D)	Text	1	F
LinkYear	Year link went live or was leased	Short		2014
Ownership	Is this Link Owned (O) or Leased (L)	Text	1	L
ConceptLink	For lessees: Is the depiction of the link conceptual between nodes? (Y)/(N)	Text	1	Y
Capacity	The data throughput the link is currently configured to transmit in Mbps	Integer		10000
Estimate	If the data for the initial submission is an estimate which does not meet	Text	1	N

	the 7.6m accuracy requirement, put (E). If not, put (N)			
Data Set	Describe the data set relied upon. If the data set relied upon resulted from an estimate, describe the software used. If the data set relied upon is <i>not</i> an estimate, put (I) for internal data	Text	255	1

- **SAC Number:** the Study Area Code used by USAC that amounts to a unique identifier for each Alaska Plan participant. For entities with multiple SAC numbers, an “Admin SAC” number that represents the multiple SAC numbers will be provided by USAC. Filers that do not wish all of their SAC numbers combined should contact USAC to request multiple “Admin SAC” numbers.
- **Carrier name:** the D/B/A name of the carrier receiving support under the Alaska Plan. If filing the map on behalf of multiple carriers, provide all carriers’ names in the “Carrier” field and separate each carrier with a semi-colon. A filer may—but is not required to—submit one filing per carrier, even if the separate carriers share the same holding company, so long as each filing has a distinct Admin SAC. Carrier names should be provided in alphabetical order.
- **The ID field:** This is a sequential integer ranging from 1 to the total number of link features. No two link features should be given the same ID.
- **TypeofLink:** Provide the link type, consistent with the description. If two different types of links share the same geographic path (e.g., lit fiber and dark fiber), a separate record is required of each.
- **LinkYear:** For dark fiber, put a 9999. If the link was first used by the carrier in 2014 or any year prior to 2014, the LinkYear will be 2014. Otherwise filers will enter the actual year the path went live or was leased.
- **Ownership:** Is the link owned (i.e., any ownership interest regardless of how *de minimis*) by the company that is filing? If so, put “O.” If leased—even if the lease is for just a portion of the capacity on the link—put “L.”
- **ConceptLink:** Lessees may not know where the link actually is located. For lessees that do not know where the link actually is located, conceptual depictions of the link may be made and should be made as a straight line between two known and provided nodes. Filers that own the line or lessees that provide the actual location information of the link should mark it with a “N.”
- **Capacity:** This reflects the maximum data transmission capability the link is currently configured to transmit. For data throughput capability that is less than 0.5 Mbps or dark fiber, put a 0. Round to the nearest integer. For leased lines, if the amount of capacity is restricted, put the amount of capacity that is leased; otherwise, provide the maximum data throughput rate that your company has been able to transmit over the link.
- **Estimate:** Only available for filings due July 1, 2018.<sup>100</sup> If the data set relied on is not accurate to within 7.6m CE95 (FGDC-STD-007, 3-1998), put (E) to indicate that the link information is based on an estimate of best available data. This estimate should not be less accurate than 50 meters. These estimates must be updated to the accuracy requirements of 7.6m CE95 (FGDC-STD-007, 3-1998) by the filing due March 1, 2019.

<sup>100</sup> See Order, *supra* (discussing accuracy). Because all data must be compliant with the accuracy requirement by the March 1, 2019 filing, the only opportunity to file an estimate is July 1, 2018.

- **Data Set:** For filings due July 1, 2018, describe the data set relied upon. If the data set relied upon is from an estimate, describe the software used (e.g., Google Earth). If the data set relied upon is *not* from an estimate, put (I) for Internal Data. For subsequent years' filings, may only rely on internal data sets which meet the accuracy requirements of 7.6m CE95 (FGDC-STD-007, 3-1998).

### III. NODES

Alaska Plan participants must also provide the location (latitude and longitude coordinates) of the nodes covering eligible areas and update such maps if the participant deploys middle-mile facilities in the prior calendar year that are or will be used to support service in eligible areas.

These nodes can be (1) a “major node”—for the purposes of this collection: a central office, cable headend, mobile switching center, earth station, point of presence, landing station, peering point, or Internet gateway within Alaska—(2) an outdoor cell site; (3) a community anchor institution,<sup>101</sup> or; (4) a terminating location of a link. If multiple functions are performed at the same node (e.g., the same facility houses the central office and a mobile switching center), the carrier should report multiple facilities at that location.

Alaska Plan participants should include those nodes where they own (i.e., any ownership interest regardless of how *de minimis*) or lease a facility or equipment, as well as those nodes that are the terminating location for a link where the filer does not own or lease node equipment or facilities at the termination point.

#### Filing Guidance for Nodes:

- Submit the file as a CSV. The file should be named with the (1) Admin SAC number in filing, (2) underscore, and (3) year that the information is filed (e.g., 613000\_2018).
- The horizontal (latitude and longitude) accuracy of nodes must meet National Standard for Spatial Data Accuracy: accurate to within 7.6m CE95 (FGDC-STD-007, 3-1998), or labeled as an “estimate,” as indicated below.

#### Record Format for Nodes

Field Name	Description	Type	Example
SAC Number	Admin Study Area Code that amounts to a unique identifier for each Alaska Plan filer	Text	613000
Carrier	Carrier Name(s)	Text	ABC; ABC Mobile
ID	Sequential record number	Integer	1
Lat	Latitude	Double	43.907111

<sup>101</sup> Order, *supra* (discussing reportable community anchor institutions).

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Long	Longitude	Double	-103.760250
Node	Type of Facilities at the node: fiber (F), microwave (M), or both (B)	Text	F
NodeYear	Year Node went “live” or leased	Integer	2014
Ownership	Owned (O), Leased (L), Neither (N)	Text	O
Describe	Describe node	Text	central office, cable headend
Cell Site	Is this node the first aggregation point for mobile traffic? Yes (Y) or No (N)	Text	N
Transit	If interconnection to a transit provider occurs at this node, what is the arranged data rate in Mbps.	Integer	10
Homing	How many different transit providers does the filer have agreements with at this node	Integer	3
Estimate	If the data for the initial submission is an estimate which does not meet the 7.6m accuracy requirement, put (E). If not, put (N)	Text	E
Data Set	Describe the data set relied upon. If the data set relied upon resulted from an estimate, describe the software used. If the data set relied upon is <i>not</i> an estimate, put (I) for internal data	Text	Google Earth

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- **SAC Number:** The Study Area Code used by USAC that amounts to a unique identifier for each Alaska Plan participant. For entities with multiple SAC numbers, an “Admin SAC” number that represents the multiple SAC numbers will be provided by USAC. Filers that do not wish all of their SAC numbers combined should contact USAC to request multiple “Admin SAC” numbers.
- **Carrier name:** The D/B/A name of the carrier receiving support under the Alaska Plan. If filing the node-file on behalf of multiple carriers, provide all carriers’ names in the “Carrier” field and separate each carrier with a semi-colon. A filer may—but is not required to—submit one filing per carrier, even if the separate carriers share the same holding company, so long as each filing has a distinct Admin SAC. Carrier names should be provided in alphabetical order.
- **The ID field:** A sequential integer ranging from 1 to the total number of node features. No two nodes should be given the same ID.

- Latitude and Longitude: Provide the full value of the latitude and longitude in decimal degrees—all digits after the decimal with at least six digits after the decimal provided (i.e., no “trailing zeros” or rounding before the 7<sup>th</sup> decimal place). Coordinates will be in the WGS84 geographic coordinate system.
- NodeYear: If the node went live in 2014 or any year prior to 2014, the NodeYear will be 2014. Otherwise filers will enter the actual year the node went live. For lessees, put the year the filer began the lease. For termination location nodes where no facilities or equipment are owned or leased, put 9999.
- Ownership: If any equipment or any part of the facility is owned at the node, put (O). If no part of the node is owned, but some equipment or part of the facility is leased, put (L). “Leased” nodes include any facilities or equipment at a node that is provided due to a contractual arrangement. If no part of the node is leased or owned, but the node is being provided because it is, for example, a terminating location for a link, put (N).
- Describe: Describe the types of nodes at this location using one or more of the following terms: central office, cable headend, mobile switching center, cell site, earth station, point of presence, landing station, peering point, community anchor institution, microwave repeater, or Internet gateway. Put “other” if the node does not match any of the preceding descriptions but is a terminating location for a link.
- Cell Site: Cell sites—while also providing last-mile services—serve as an initial aggregation point for traffic to be backhauled and are nodes that are to be included in the reportable map. Denote whether this node is a cell site placing a “Y” or “N” in the column.
- Transit: At nodes where the filing network interconnects with a transit provider to obtain Internet access, what is the transmission data rate that has been arranged for delivery to the transit provider. In other words, how much capacity is being purchased for transit at this node for the filer. For arranged capacity that is less than 0.5 Mbps, put a 0. For multiple interconnections at the node, put the aggregated capacity that is provisioned for transit. If this is not a node where interconnection for transit occurs, leave blank.
- Homing: If the filer has agreements with one or more transit providers at this node, put the number of transit providers that the filer has agreements with to interconnect at this node. If this is not a node where interconnection for transit occurs, leave blank.
- Estimate: Only available for filings due July 1, 2018. If the data set relied on is certified to not be accurate within 7.6m CE95 (FGDC-STD-007, 3-1998), put (E) to indicate that that node is based on an estimate of best available data. This estimate should not be less accurate than 50 meters. These estimates must be updated to the accuracy requirements of 7.6m CE95 (FGDC-STD-007, 3-1998) by the filing due March 1, 2019.
- Data Set: For filings due July 1, 2018, describe the data set relied upon. If the data set relied upon is from an estimate, describe the software used (e.g., Google Earth). If the data set relied upon is *not* from an estimate, put (I) for Internal Data. For subsequent years’ filings, may only rely on internal data sets which meet the accuracy requirements of 7.6m CE95 (FGDC-STD-007, 3-1998).