

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

In the Matter of )  
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Wireless E911 Location Accuracy Requirements ) PS Docket No. 07-114  
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**REPLY COMMENTS OF T-MOBILE USA, INC. ON THE  
E911 ACCURACY REMAND**

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## Table of Contents

I.	Introduction and Summary .....	2
II.	There is No Exigency Justifying a Head-Long Rush to Judgment Without Time to Develop an Adequate Record, Consider Alternative Proposals, or Make a Reasonable Investigation of the Technical and Economic Feasibility and of the Relative Costs and Benefits .....	5
III.	The Record Fails to Support Imposition of the AT&T Proposal on GSM Carriers Other Than AT&T .....	7
A.	The Commission Must Exclude Counties with Fewer than Three Cell Sites.....	8
B.	The Commission Cannot Reasonably Impose AT&T’s Benchmarks on Other Carriers That Are, At Best, Just Beginning 3G Deployment.....	9
IV.	There is No Evidence In the Record of Any Alternative to A-GPS In Rural Areas Where Network-Based Solutions Cannot Feasibly Meet AT&T’s Proposed County Level Accuracy Requirements .....	11
V.	Mandating that All Newly-Certified Handsets are A-GPS Capable Will Not Meaningfully Accelerate Deployment.....	12
VI.	The Commission Should Make Clear that the “Heavy Forestation” Exception in the Verizon Wireless Proposal Includes All Terrain Obstructions.....	14
VII.	Any Other Proposed Changes to Accuracy Rules Should be Referred to an E911 Technical Advisory Group .....	14
VIII.	Conclusion .....	15

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T-Mobile USA, Inc. (“T-Mobile”) hereby replies to comments in response to the Commission’s Public Notice of September 22, 2008,<sup>1</sup> which sought comment on recent location accuracy proposals submitted after the Commission filed a Motion for Voluntary Remand and Vacatur in the United States Court of Appeals for the District of Columbia Circuit with respect to its prior location accuracy order.<sup>2</sup> In its initial comments, T-Mobile, along with the Rural Cellular Association (“RCA”), applauded AT&T, Verizon Wireless, APCO and NENA for reaching agreements on these new approaches to assessing compliance with wireless E911 accuracy standards.<sup>3</sup> T-Mobile and RCA,

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<sup>1</sup> See Public Notice, Comment Sought on Proposals Regarding Service Rules for Wireless Enhanced 911 Phase II Location Accuracy and Reliability, PS Docket No. 07-114, DA 08-2129 (rel. September 22, 2008).

<sup>2</sup> Motion of Federal Communications Commission for Voluntary Remand and Vacatur, *Rural Cellular Association and T-Mobile et al v. Federal Communications Commission and United States of America*, No. 08-1069 (D.C. Cir. July 31, 2008). On September 17, 2008, the Court granted the Commission’s motion. *Rural Cellular Association and T-Mobile USA, Inc., v. Federal Communications Commission and United States of America*, No. 08-1069, Order at 1 (D.C. Cir. Sep. 17, 2008). The Commission’s prior order was *Wireless E911 Location Accuracy Requirements, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Association of Public-Safety Communications Officials-International, Inc. Request for Declaratory Ruling, 911 Requirements for IP-Enabled Service Providers*, Report and Order, 22 FCC Rcd. 20105 (2007) (“Part A Accuracy Order”), which had been stayed by the D.C. Circuit pending appeal. *Rural Cellular Association and T-Mobile USA, Inc., v. Federal Communications Commission and United States of America*, No. 08-1069, Order at 1 (D.C. Cir. Mar. 25, 2008).

<sup>3</sup> Comments of T-Mobile USA, Inc. and the Rural Cellular Association on the 911 Location Accuracy Remand, PS Docket No. 07-114, at 1 (filed October 6, 2008)(“T-Mobile/RCA Comments”). See also

however, also noted that these agreements did not eliminate the need for the Commission to assess whether these proposals are technically and economically feasible for other carriers – which is required “by the bar against arbitrary and capricious decision-making.”<sup>4</sup> T-Mobile and RCA concluded that AT&T’s proposal must be modified in order to be potentially technically and economically feasible for carriers other than AT&T. Other parties’ comments confirm T-Mobile’s and RCA’s conclusions.

## **I. Introduction and Summary.**

T-Mobile supports many aspects of the AT&T proposal, including the use of county-level accuracy measurements; but if the standards and the intermediate benchmarks are to be applied to other carriers, they must be modified slightly so as to be technically and economically feasible. AT&T negotiated with APCO and NENA to produce a set of proposed standards and benchmarks that AT&T can meet. But as AT&T itself has pointed out, each carrier’s performance is affected by factors unique to that carrier, including “variations in cell site density, [the] impact of local topography on [radio frequency] propagation, and existing network designs.”<sup>5</sup> Most notably, AT&T is more than two years ahead of all other GSM carriers in rolling out a 3G network – which means that AT&T has been able to start selling A-GPS handsets earlier than other carriers – and now has a near nationwide deployment of 3G services that makes it much easier for AT&T to sell A-GPS capable 3G handsets to its customers than it presently is for any

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Letter of Brian Fontes, CEO, NENA, Robert M. Gurss, Director, Legal & Government Affairs, APCO, and John T. Scott, III, Vice President and Deputy General Counsel, Verizon Wireless, to Chairman Kevin Martin, PS Docket No. 07-114 (filed August 20, 2008)(“Verizon Wireless Proposal”); Letter of Brian Fontes, CEO, NENA, Robert M. Gurss, Director, Legal & Government Affairs, APCO, and Robert W. Quinn, Jr., Senior Vice President – Federal Regulatory, AT&T, to Chairman Kevin Martin, PS Docket No. 07-114 (filed August 25, 2008)(“AT&T Proposal”).

<sup>4</sup> *Nuvio Corporation v. FCC*, 473 F.3d 302, 303 (D.C. Cir. 2006).

<sup>5</sup> Letter of Joan Marsh, AT&T, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 07-114, & CC Docket No. 94-102, at 1 (filed September 5, 2008)(“AT&T September 5, 2008 Ex Parte”); *see also* T-Mobile/RCA Comments at 11.

other GSM carrier, including T-Mobile. In contrast to AT&T, T-Mobile is just now in the early stages of launching its 3G services, and must still clear government users from spectrum in many more areas and then build out the new infrastructure before its 3G network will have a reach that begins to approach AT&T's.<sup>6</sup> Not surprisingly, it is extremely difficult to sell consumers a handset for advanced services that are not yet available in their area.

To address these and other problems, T-Mobile and RCA proposed five modifications and one clarification:

- Extend the second, third and fourth benchmarks proposed by AT&T to Years 5, 7 and 10, respectively, giving all other carriers a comparable time from their initial offering of 3G services as AT&T has had to deploy A-GPS handsets to customers – an essential component of meeting the benchmarks. For network-based carriers that have not deployed 3G services, these benchmarks should run from the first offering of such services, rather than from the effective date of the rules.
- For the third benchmark, reduce to 85% the network-wide handset penetration level necessary to be able to measure compliance in a county according to handset-based results and accuracy standards.
- Temporarily permit carriers to exclude from their compliance any counties with fewer than three cell sites until the carrier achieves the minimum handset penetration necessary to be able to measure compliance in a county according to handset-based results only.
- Defer the first benchmark by 6 months (to 18 months after the effective date) for Tier I and Tier II carriers and by at least one year (to at least 24 months after the effective date) for Tier III carriers to give all carriers more time to implement necessary changes in their networks, to conduct necessary empirical tests at the county level, and to make any further refinements.
- Permit a carrier to blend handset-based and network-based results at the first benchmark, just as with later benchmarks.
- Clarify that these new county-level standards would be for outdoor accuracy measurements only.

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<sup>6</sup> See T-Mobile/RCA Comments at 12-16.

These changes do not alter the ultimate objective that all carriers will be held to – county level compliance with the 100m/67% standard in all counties and with the 300m/90% standard in 85% of counties – but simply modify the implementation path and time frames for such compliance.

The other comments filed confirm T-Mobile’s and RCA’s concerns. Like T-Mobile and RCA, other commenters conclude that it does not make sense to include in the initial benchmarks counties with fewer than three cell sites – in which terrestrial triangulation is impossible. Similarly, commenters also confirm that, for GSM carriers, deploying a 3G network is critical to implementing A-GPS, as A-GPS handsets are available, if at all, only for nascent 3G services.

In addition, although some technology vendors filed comments promoting their individual technologies, those vendors all focused on the applicability of their solution to urban areas, and not to the rural areas where U-TDOA faces the most challenges today. These alternative technology vendors all focus on the potential for their technology to be used in *combination* with A-GPS, not in lieu of it – which is consistent with T-Mobile’s own discussions with these and other vendors.<sup>7</sup> Thus, there is no basis on which the Commission could conclude that some technology other than A-GPS would permit a GSM carrier to meet AT&T’s proposed benchmarks in the most problematic rural counties.

In this environment, with this record, the Commission should avoid a rush to judgment. Instead, as required by the Administrative Procedure Act, it should take the time necessary to conduct a detailed evaluation of the complex technical issues before it.

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<sup>7</sup> Indeed, virtually every location technology vendor interested in providing a solution for E911 – not just those who filed comments in this proceeding – propose their technology for use in addition to A-GPS.

Simply extrapolating that, because AT&T can meet its proposed standards and benchmarks, other carriers will be able to do so, lacks any basis – and is contradicted by the record. It would be arbitrary and capricious to do anything other than develop an adequate record that relates to the industry as a *whole*, consider alternative proposals in light of such evidence, and make a reasonable investigation of technical and economic feasibility and of the relative costs and benefits of proposed requirements.

**II. There is No Exigency Justifying a Head-Long Rush to Judgment Without Time to Develop an Adequate Record, Consider Alternative Proposals, or Make a Reasonable Investigation of the Technical and Economic Feasibility and of the Relative Costs and Benefits.**

When the Public Safety and Homeland Security Bureau denied RCA’s and T-Mobile’s request for extension of time, it cited “the compelling public interest in achieving accurate and reliable E911 information.” While T-Mobile does not dispute that it is important to achieve accurate and reliable E911 information, it is wholly unreasonable to claim that a one week delay in the reply comment period – or, as is more relevant now, a moderate one or two month delay to allow a fuller record to be developed and analyzed before the Commission adopts final rules – would somehow be material to an accuracy plan that is proposed to be implemented over an eight year period. The Commission itself delayed over four months from the D.C. Circuit’s issuance of its stay of the *Part A Accuracy Order* before seeking vacatur and remand – hardly the mark of exigent circumstances.<sup>8</sup> In the context of what is clearly a multiyear implementation of whatever new accuracy rules are promulgated – the first benchmark of which is at least a year from the effective date of the Commission’s new rules – there is no basis for

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<sup>8</sup> The D.C. Circuit issued its stay of the *Part A Order* on March 25, 2008, but the Commission did not move for vacatur and remand until July 31, 2008. *See* n. 2, *supra*.

refusing to obtain necessary input or to undertake the effort to evaluate the record and to consider reasonable proposed alternatives.

The Commission should accordingly reconsider its rush to judgment here. The Commission has allowed parties a bare 12 days after Federal Register publication for initial comments, and only eight days for reply comments – a total of 20 days – far short of the minimum 30-day period the courts have considered appropriate.<sup>9</sup> Indeed, for the type of technical analysis at issue here, the Administrative Conference of the United States has concluded that 60 days is the minimum allowable time period for comment.<sup>10</sup>

Both affected parties and the Commission particularly need time for detailed analysis here. As AT&T made clear in its September 5, 2008 *ex parte*, there are a wide range of factors that will affect a carrier's ability to meet the proposed benchmarks. This is true for large and small carriers alike, as many of the factors cited by AT&T – including terrain, topography, cell site density, network design and other challenges in serving rural areas – do not vary based upon whether a carrier is Tier I, Tier II or Tier III, but are inherent in the areas being served.<sup>11</sup>

“[I]nstead of accepting proposals of carriers who are relying on yet-to-be developed solutions, the Commission should take time to evaluate the real world performance of available technology in sparsely populated and rural communities.”<sup>12</sup>

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<sup>9</sup> See, e.g., *Petry v. Block*, 737 F.2d 1193, 1201 (D.C. Cir. 1984); *Riverbend Farms, Inc. v. Madigan*, 958 F.2d 1479, 1484 (9th Cir. 1992).

<sup>10</sup> See *Petry v. Block*, 737 F.2d 1201.

<sup>11</sup> See Comments of the National Telecommunications Cooperative Association, PS Docket No. 07-114, at 2 (filed October 6, 2006) (“NTCA Comments”) (proposing using an E911 Technical Advisory Group “to develop a technically and economically achievable standard for location accuracy.”); Comments of the Blooston Rural Carriers, PS Docket No. 07-114, at 2 (filed October 6, 2006) (“Blooston Rural Carriers Comments”) (urging the Commission “not to amend its existing E911 rules, or to adopt county-level compliance standards, until non-nationwide carriers and rural service providers have had a meaningful opportunity to evaluate the *ex parte* proposals”).

<sup>12</sup> NTCA Comments at 2.

Without doing so, the Commission cannot discharge its obligations under the APA to act in a manner that is neither arbitrary nor capricious.

### **III. The Record Fails to Support Imposition of the AT&T Proposal on GSM Carriers Other Than AT&T.**

Almost every commenter makes the point that, although the Verizon Wireless and AT&T proposals may be suitable for those companies, they are not technically and economically feasible for other carriers.<sup>13</sup> Indeed, AT&T itself concedes that its proposal “cannot be met solely in reliance on technology that is available today.”<sup>14</sup> T-Mobile agrees that “efficient and accurate implementation of improved location accuracy requirements will be impossible without the technical expertise of all stakeholders, including wireless network manufacturers, wireless device manufacturers, carriers, and public safety,” and that “the involvement of the entire industry is necessary to ensure that this effort to address location accuracy produces a better result than previous attempts.”<sup>15</sup> As Nokia points out, “the specific proposals put forward by [Verizon Wireless and AT&T] may not be right for every carrier.”<sup>16</sup>

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<sup>13</sup> The exception is Sprint, which has endorsed the Verizon Wireless plan. Comments of Sprint Nextel Corporation, PS Docket No. 07-114, at 3 (filed October 6, 2008) (“Sprint Comments”). Sprint’s comments, however, do not address the AT&T proposal, which is the one applicable to GSM carriers. In addition, the New York Police Department argues that there should be no change to the Commission’s rules regarding location accuracy, compliance and implementation deadlines. Comments of The New York City Police Department, PS Docket No. 07-114, at 2 (filed October 6, 2008). While the New York Police Department’s desire to adhere to the vacated *Part A Accuracy Order* is understandable, it presents no evidence beyond vague generalities that the *Part A Accuracy Order* was technically and economically feasible.

<sup>14</sup> Comments of AT&T Inc., PS Docket No. 07-114, at 3 (filed October 6, 2008) (“AT&T Comments”).

<sup>15</sup> Comments of the Telecommunications Industry Association, PS Docket No. 07-114, at 1-2, (filed October 6, 2008) (“TIA Comments”); *See also* Comments of Motorola, Inc., PS Docket No. 07-114, at 4 (filed October 6, 2008) (“Motorola Comments”) (Motorola “notes the concern of other carriers that AT&T and Verizon Wireless do not represent the wireless industry as a whole” and thus recommending referring the proposals to an E911 Technical Advisory Group); Comments of Nokia Inc. and Nokia Siemens Networks US LLC, PS Docket No. 07-114, at 1 (filed October 6, 2008) (“Nokia Comments”) (the AT&T and Verizon Wireless proposals “do not necessarily represent the views or needs of the entire industry”); Andrew Comments at 1 (“[C]ooperation and input among all interested parties is necessary in order to realize truly advanced wireless E911 capabilities.”)

<sup>16</sup> Nokia Comments at 2.

**A. The Commission Must Exclude Counties with Fewer than Three Cell Sites.**

The comments confirm that the Commission must exclude counties with fewer than three cell sites, as T-Mobile and RCA proposed.<sup>17</sup> AT&T in its proposal recognized that counties with no cell sites, but only incidental wireless coverage, should be excluded – with which APCO and NENA agreed. But this exclusion does not go far enough to recognize the engineering realities. As Corr Wireless points out, “the impossibility of achieving extremely high levels of accuracy in network-based E-911 systems in the absence of multiple cell sites has been a continuing ‘core’ fact which has realistically defined the capability of network-solution carriers to meet the accuracy levels demanded by the public safety community.”<sup>18</sup> Like T-Mobile and RCA, Corr observes, “while all commenters to date accept county-based measurement as feasible in many areas, there is also general acknowledgement that county-based measurement is *not* feasible and therefore *not* an appropriate measurement tool in all areas.”<sup>19</sup> The Commission cannot ignore a basic engineering fact – that terrestrial triangulation is not possible where a handset cannot view at least three cell sites.<sup>20</sup>

This basic engineering fact could be acknowledged by adopting the T-Mobile/RCA proposal to exclude counties with only one or two cell sites until the penetration level is reached to allow use of A-GPS measurements and standards. When a handset can view only one or two cell sites, network technologies cannot meaningfully improve accuracy. The only way to improve accuracy is to implement A-GPS, which

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<sup>17</sup> T-Mobile/RCA Comments at 20-22.

<sup>18</sup> Corr Wireless Comments at 2.

<sup>19</sup> *Id.* (emphasis in original)

<sup>20</sup> *See id.* at 3 (proposing only Phase 1 wireless service for “areas or counties where a network-solution carrier has fewer than four overlapping cell contours (based on a relatively liberal -96 dbm signal strength level).”)

allows the location to be triangulated using GPS satellites, rather than using terrestrial cell sites.

T-Mobile's and RCA's proposal temporarily to exclude counties with only one or two cell sites is highly reasonable. Within T-Mobile's network, temporarily excluding counties with only one or two cell sites would affect only a small percentage of the total POPs (population) within T-Mobile's footprint – only about 1%. Once it achieved sufficient handset penetration (as T-Mobile and RCA proposed, 85% at the seventh year and 95% at the tenth year), T-Mobile would then have to comply in these counties by meeting the handset accuracy standards of 50 meters for 67% of calls and 150 meters for 90% of calls.<sup>21</sup>

**B. The Commission Cannot Reasonably Impose AT&T's Benchmarks on Other Carriers That Are, At Best, Just Beginning 3G Deployment.**

The record also confirms that a GSM carrier's deployment of 3G services and its ability to obtain and offer A-GPS capable 3G handsets is critical to achieving county level accuracy compliance beyond the first benchmark. Every commenting GSM carrier anticipates or assumes deploying A-GPS in order to comply.<sup>22</sup> Yet, at this time, except for high end 3G handsets, no handset-based solution exists, as a number of smaller GSM carriers point out.<sup>23</sup>

This is fundamentally why T-Mobile and RCA proposed extending the dates for meeting the second, third and fourth benchmarks by two years, so that all carriers other than AT&T would be able to actually deploy their 3G services and have the same amount

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<sup>21</sup> This would be subject to the exclusion of up to 15% of counties for terrain obstructions. Verizon Wireless Proposal at 1; *see also* Section VI, *infra*, regarding the scope of the terrain obstruction exclusion.

<sup>22</sup> *See* AT&T September 5, 2008 Ex Parte at 2-3; Corr Wireless Comments at 3; NTCA Comments at 2; Comments of the Rural Telecommunications Group, Inc., PS Docket No. 07-114, at 2 (filed October 6, 2008) (“Rural Telecommunications Group Comments”).

<sup>23</sup> *See* Rural Telecommunications Group Comments at 2; NTCA Comments at 2.

of time as AT&T has had to achieve needed levels of A-GPS handset penetration.<sup>24</sup> Not only are 3G handsets the only ones containing A-GPS to date – and currently only at the high end of the cost and feature range – but it is extremely difficult to sell a customer a 3G handset if the network in the customer’s area still is only capable of delivering 2G services. In this respect, AT&T has a substantial advantage in achieving A-GPS penetration, because much more of its network is currently delivering 3G than any other GSM carrier; AT&T has at least a two year head start in deploying 3G services nationwide.<sup>25</sup> The Commission cannot reasonably anticipate or require carriers that are only beginning to deploy 3G services – such as T-Mobile – or that have not yet begun to deploy 3G services – such as rural carriers – to meet the same A-GPS handset penetration timetable as AT&T. Other carriers are starting from a different point than AT&T.

Imposing the AT&T proposal’s A-GPS-related county-level accuracy benchmarks on all other GSM carriers would thus be arbitrary and capricious, as there is no basis in the record for concluding that they will be technically and economically feasible for any carrier other than AT&T. Nor can the Commission justify a rule by labeling a wish as a “predictive judgment.” Predictive judgments must have a basis in the record.<sup>26</sup>

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<sup>24</sup> T-Mobile/RCA Comments at 12-17. The ten year timeframe for achieving 95% A-GPS handset penetration also largely accords with Corr Wireless’ proposal for a ten year exclusion of areas or counties with fewer than four overlapping cell contours, unless the carrier achieves a 90% handset penetration. *See* Corr Wireless Comments at 3.

<sup>25</sup> T-Mobile/RCA Comments at 13-14; *see also* Tom Keathley, VP Radio Access & Standards, AT&T, “AT&T: Deploying UMTS/HSPA,” at 2, 5, *available at*: [http://3gamericas.com/English/Technology\\_Center/Presentations/UMTS/06\\_Deploying\\_UMTS-HSPA.pdf](http://3gamericas.com/English/Technology_Center/Presentations/UMTS/06_Deploying_UMTS-HSPA.pdf)

<sup>26</sup> *BellSouth Telecoms., Inc. v. FCC*, 469 F.3d 1052, 1060 (2006) (“We cannot overlook the absence of record evidence . . . simply because the Commission cast its analysis as a prediction of future trends”).

#### **IV. There is No Evidence In the Record of Any Alternatives to A-GPS In Rural Areas Where Network-Based Solutions Cannot Feasibly Meet AT&T's Proposed County Level Accuracy Requirements.**

There is no basis in the record for the Commission to “predict” that new technological solutions other than A-GPS will provide a means of meeting county level accuracy requirements in the rural areas where current network-based solutions are most challenged by terrain and site quantity, density, and geometry. The technology vendors that have submitted comments in the record focus almost exclusively on service in urban or suburban environments, and not in rural areas – or propose solutions that will not remedy the problems T-Mobile and RCA have identified.

Polaris, for example, cites the result of trials that it performed in Tokyo, Japan, and its suitability to complement A-GPS.<sup>27</sup> Polaris states that its solution “is most accurate in high cell density environments where many measurements are often reported, such as dense urban and many indoor settings.”<sup>28</sup> Unlike A-GPS, this would not help T-Mobile or any other GSM carrier achieve better accuracy location in areas in which the handset is only in view of one or two cell towers, or in which cell sites are lined up in a “string of pearls” configuration along a highway or river.

S5 touts its solution as a potential “hybrid solution with GPS.”<sup>29</sup> Thus, contrary to its overblown claims,<sup>30</sup> S5 is not going to help a network-based carrier achieve county

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<sup>27</sup> Comments of Polaris Wireless, Inc., PS Docket No. 07-114, at 5-9, (filed October 6, 2008) (“Polaris Wireless Comments”). Indeed, Figure 4 in Polaris’ comments compares the performance of A-GPS alone, Polaris alone, and Polaris combined in a hybrid solution with A-GPS. *Id.* at 9.

<sup>28</sup> *Id.* at 2.

<sup>29</sup> Comments of S5 Wireless, Inc., PS Docket No. 07-114, at 1-2, (filed October 6, 2008) (“S5 Comments”).

<sup>30</sup> See S5 Comments at 4 (claiming “it is possible to meet current accuracy standards *today* using available technology.”) S5 relies on the Commission’s statement in the *Part A Order* that “PSAP-level compliance is feasible today.” Of course, that order was vacated at the Commission’s request. In addition, the Commission’s statement about the feasibility of PSAP-level compliance itself was contrary to the substantial weight of the record before the Commission at that time, and has since been called into doubt even by APCO and NENA. Letter from Willis Carter, President, APCO International, and Ronald Boneau, President, NENA, to Chief Derek Poarch, Chief, Public Safety and Homeland Security Bureau, FCC, PS

level accuracy *without* implementing A-GPS. In fact, the S5 solution, like A-GPS, requires the addition of dedicated hardware in the handset – which, if mandated, would require carriers to start over the process of swapping out handsets. It would also require the construction of a new, separate nationwide network of location measurement units capable of receiving the spread spectrum transmissions from the handsets to be located – which would likely be sparsely distributed in rural areas for the same reason that U-TDOA LMUs are today. None of this reduces the time required to come into compliance with the proposed performance benchmarks.

Thus, there is no basis for the Commission to predict that a GSM carrier can achieve county-level compliance by implementing some other technology in lieu of A-GPS.

**V. Mandating that All Newly-Certified Handsets are A-GPS Capable Will Not Meaningfully Accelerate Deployment.**

Corr Wireless proposes that all newly certified GSM handsets be required to be A-GPS capable. While a novel suggestion, this will not meaningfully accelerate deployment of A-GPS handsets. Carriers will already be driven by the benchmarks to incorporate A-GPS into their handsets – and even more quickly if the Commission adopts T-Mobile’s and RCA’s proposal to permit blending in determining compliance with the first benchmark. Thus, Corr’s proposed mandate is duplicative and unnecessary.

Furthermore, handset vendors could not implement Corr’s proposal instantly. There would be a substantial period while the various handset vendors redesigned their handsets to incorporate A-GPS functionality. At present, T-Mobile is aware of no 2G GSM handsets with A-GPS capability. Many existing handset designs do not have the

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Docket No. 07-114 and CC Docket No. 94-120 at 1 (filed July 14, 2008) (“it may not be technically feasible for carriers to meet the modified location accuracy requirements in every county”).

physical space necessary to place the required GPS hardware and antenna to support A-GPS functionality. The time required for design implementation, test, and certification of new handset models with this functionality would likely take at least the few years that the proposal outlined above envisions. As a result, carriers would still not be able immediately to fill their handset lineups with A-GPS capable handsets, and by the time such changes could be accomplished, carriers would already be working vigorously to meet handset penetration objectives built into the benchmarks.

Corr Wireless states that “the incremental cost of adding A-GPS capability to GSM handsets is miniscule.” T-Mobile disagrees with this assessment. The incremental cost of adding A-GPS to a handset is more than just the cost of the chip and its associated components – which by themselves are a substantial percentage of the entire handset cost, particularly for the low-end consumer models. Adding A-GPS will also greatly add to the cost of handsets if those produced for the U.S. market must be a special production run, rather than using a single production run shared with the rest of the world. As a practical matter, the requirement to put A-GPS in every handset could virtually eliminate today’s very low cost GSM handset models. This could result in loss of consumer choice or some subscribers declining to obtain any handset, thus doing more harm to public safety than good.<sup>31</sup>

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<sup>31</sup> In addition, because of international standards, GSM carriers do not totally control which handsets operate in their network. Individuals can and do acquire handsets from sources outside the country which would not be subject to any U.S. driven equipment mandates. The incentive to procure devices in this manner may actually increase if these types of U.S. mandates drive up the cost of domestic devices.

**VI. The Commission Should Make Clear that the “Heavy Forestation” Exception in the Verizon Wireless Proposal Includes All Terrain Obstructions.**

The Verizon Wireless proposal as written allows a carrier to exclude up to 15 percent of counties from the 150 meter requirement in cases of “heavy forestation.”<sup>32</sup> Sprint states that this exclusion really applies to all terrain obstructions, whether man-made or natural, and that APCO and NENA agree with this interpretation.<sup>33</sup>

As Motorola suggests, clarifying this in the final Verizon Wireless proposal would make sense because an “exclusion based on forestation alone will not capture the full array of geographic challenges faced by carriers. Any obstruction or significant attenuation of radio signals of any kind is challenging and must be considered in the analysis of any solution.”<sup>34</sup>

**VII. Any Other Proposed Changes to Accuracy Rules Should be Referred to an E911 Technical Advisory Group.**

A wide range of commenters support referring all other potential changes -- and even these changes – to the accuracy rules to an E911 Technical Advisory Group (“ETAG”).<sup>35</sup> T-Mobile agrees that questions as to potential future hybrid technologies, indoor accuracy measurements and implementation issues surrounding the AT&T and Verizon Wireless proposals should all be addressed in the first instance by an ETAG. In particular, there needs to be a way for the Commission and the industry to evaluate

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<sup>32</sup> Verizon Wireless Proposal at 1.

<sup>33</sup> Sprint Comments at 3 & n.5.

<sup>34</sup> Motorola Comments at 4.

<sup>35</sup> AT&T Comments at 4-5; Verizon Wireless Proposal at 2; TIA Comments at 1-2; S5 Comments at 6; Comments of the Alliance for Telecommunications Industry Solutions’ Emergency Services Interconnection Forum, PS Docket No. 07-114, at 4-5 (filed October 6, 2008); NTCA Comments at 2; Motorola Comments at 4; Further Comments of the Wireless Communications Association International, Inc., PS Docket No. 07-114, at 7 (filed October 6, 2008); Nokia Comments at 2-3; Andrew LLC Comments at 1; Rural Telecommunications Group Comments at 4; Blooston Rural Carriers Comments at 2; Comments of WirelessWERX, PS Docket No. 07-114, at 1 (filed October 6, 2008).

vendor claims in order to separate those with real promise from those that are simply vaporware.

### **VIII. Conclusion.**

There is no basis in the record to justify requiring carriers other than AT&T to meet the county-level accuracy benchmarks proposed by AT&T. As a reasonable alternative, the Commission should modify the AT&T proposal by adopting the five modifications proposed by T-Mobile and RCA, and by clarifying that – like the Verizon Wireless proposal – the AT&T proposal applies only to outdoor measurements. This will allow carriers other than AT&T to reach the same ultimate county-level accuracy standards, but according to a technically and economically feasible timeframe that recognizes that for GSM carriers – including AT&T – the implementation of A-GPS is tied directly to the deployment of 3G services. The Commission should also make clear that the “heavy forestation” exclusion in the Verizon Wireless proposal applies to all terrain obstructions, as Sprint states.

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