

**Before the Federal Communications Commission**

---

*IN RE*

WIRELESS E911 LOCATION ACCURACY REQUIREMENTS

---

*ON PUBLIC NOTICE*

*SUBSEQUENT TO THE THIRD FURTHER NOTICE OF PROPOSED RULEMAKING  
AND NOTICE OF PROPOSED RULEMAKING*

---

**COMMENTS OF THE  
NATIONAL EMERGENCY NUMBER  
ASSOCIATION**

---

TELFORD E. FORGETY, III

*Attorney*

*Government Affairs Director*

*1700 Diagonal Road, Ste. 500*

*Alexandria, VA 22314*

*(202) 618-6369*

---

---







## CONTENTS

<b>Comments</b> .....	<b>1</b>
I. The Roadmap creates a unified indoor and outdoor location accuracy requirement.....	2
II. Enabling “Dispatchable Location” technologies is a clear win for the public and the public safety community. ....	2
III. The Roadmap process will meet the need for actionable z-axis data.....	4
IV. Basing carrier compliance metrics on testing and live 9-1-1 call data is consistent with NENA’s desire for improved transparency.....	5
<b>Conclusion</b> .....	<b>6</b>



**Before the Federal Communications Commission**

PS Docket № 07-114

---

*IN RE*

WIRELESS E911 LOCATION ACCURACY REQUIREMENTS

---

*ON PUBLIC NOTICE*

*SUBSEQUENT TO THE THIRD FURTHER NOTICE OF PROPOSED RULEMAKING  
AND NOTICE OF PROPOSED RULEMAKING*

---

**COMMENTS OF THE  
NATIONAL EMERGENCY NUMBER ASSOCIATION**

---

NENA: The 9-1-1 Association respectfully submits the following comments in response to the *Public Notice* released by the Public Safety and Homeland Security Bureau on November 20<sup>th</sup>, 2014, in the above-captioned proceeding.

**COMMENTS**

The landmark location accuracy roadmap concluded between AT&T, Sprint, T-Mobile, Verizon, NENA, and APCO sets the stage for a quantum leap in 9-1-1 location accuracy. No longer must 9-1-1 be an afterthought, consigned by economic realities and regulatory timelines to slow and halting advances. With this agreement, the public, the public safety community, the carriers and the Commission alike can finally benefit from the rapid rate of advance that comes with the force of a vibrant market and intense competition. At the same time, though, each stakeholder can rest assured that meaningful regulatory requirements undergird these advances. The roadmap

provides the sort of meaningful voluntary commitments that NENA has previously insisted to be conditions precedent to a lighter regulatory touch. Consequently, NENA encourages the Commission, consistent with the roadmap, to codify certain of its provisions that align with such an approach.

**I. The Roadmap creates a unified indoor and outdoor location accuracy requirement.**

In NENA’s initial comments with respect to the Third Further Notice of Proposed Rulemaking, we identified several key metrics that we believe the Commission should unify in its final rules.<sup>1</sup> Those initial comments, however, could not have anticipated the extent to which such a unification could be achieved. As finally concluded, the Roadmap goes significantly farther than NENA proposed, unifying *all* Wireless E9-1-1 location requirements around a single key measure: the fraction of live 9-1-1 calls for which available data implies a location fix within 50m *or* for which a Dispatchable Location (“DL”) is available. The importance of this requirement cannot be overstated: Eliminating the Commission’s existing, less-stringent location accuracy rules, which permit positioning errors of up to 300m, in favor of a single, high-accuracy requirement is a powerful change indeed. NENA is pleased that the carriers could agree to this, and we are convinced that the dramatic improvement in both outdoor and indoor location accuracy this change will bring about will far exceed those contemplated by the Commission’s proposed indoor-only rules.

**II. Enabling “Dispatchable Location” technologies is a clear win for the public and the public safety community.**

Even before the publication of the finalized Roadmap, some commenters have objected to the paradigm shift it

---

<sup>1</sup> NENA: The 9-1-1 Association, *Comments* at 4-10 & 18 (May 14, 2014).

creates, away from improvements in Latitude/Longitude technologies and toward, ultimately, Dispatchable Location technologies. Leaving aside the commercial interests behind many such comments, NENA notes that even the most vehement objectors still acknowledge that Dispatchable Location is a laudable goal,<sup>2</sup> and one that the Commission should encourage. NENA is heartened by this point of near-universal agreement. Though it has been said many times, Dispatchable Location truly is the “Gold Standard” for public safety positioning. For it is only with a civic address and floor/apartment/suite/room data that a field responder such as a policewoman, fireman, or EMT can be directed to the location of a 9-1-1 call.

At the same time, however, NENA has recognized that the long-term nature of the transition to DL technologies will require intermediate improvements in latitude/longitude technologies to enable better location accuracies for callers situated outside of DL coverage.<sup>3</sup> We are proud that the Roadmap adopts the approach proposed by NENA of establishing a single location-accuracy requirement while providing “full credit” for carrier-provided “fixes” that provide a Dispatchable Location.<sup>4</sup> We are convinced that such an approach addresses the reasonable concerns expressed by NENA and others in the public safety community with respect to the speed at which DL technologies can be deployed by providing a 50m backstop consistent with the Commission’s initial proposal, coupled with reasonably-extended timeframes consistent with many comments filed in response to the

---

<sup>2</sup> *E.g.*, FindMe 911 Coalition, *Webinar Presentation*, at 11 (Dec. 9, 2014) (stating “[w]e agree that the actual delivery of dispatchable address to PSAPs is a worthy and important goal, the ultimate gold standard.”).

<sup>3</sup> NENA: The 9-1-1 Association, *Comments* at 18 (May 14, 2014).

<sup>4</sup> *Id.*

initial Third FNPRM.<sup>5</sup> Consequently, we urge the Commission to adopt this approach, as contemplated in the Roadmap, in its final rules.

### **III. The Roadmap process will meet the need for actionable z-axis data.**

NENA remains convinced that accurate and timely z-axis data can be made available to PSAPs, and that such data can be used by PSAPs and field responders alike to improve emergency response efforts.<sup>6</sup> Though some commenters view the requirements set forth in the Roadmap as lacking in substance,<sup>7</sup> NENA views them instead as recognizing the significant disagreement, notably visible in this docket, about whether, how, and to what extent z-axis data can be provided by carriers and used by PSAPs.

Ultimately, NENA believes that highly-accurate z-axis data, whether derived from improved A-GNSS systems, barometric pressure sensors, or Metropolitan Beacon Systems, can be provided in an altimetry format consistent with the Commission's proposals. Despite what some have said, the Roadmap does not foreclose such an outcome. On the contrary, it explicitly encourages prompt and thorough testing of both uncompensated barometry techniques *and* locally-compensated altimetry techniques.<sup>8</sup> NENA anxiously awaits the results of that testing, and hopes that all parties will pay close attention to them. Coupled with the requirement for *the best* z-axis data (floor numbers) in DL "fixes," NENA believes that

---

<sup>5</sup> *E.g.*, NENA: The 9-1-1 Association, *Reply Comments* at 16-17 (Jul. 14, 2014).

<sup>6</sup> NENA: The 9-1-1 Association, *Comments* at 21-23 (May 14, 2014); *Reply Comments* at 9-14 (Jul. 14, 2014)

<sup>7</sup> *E.g.*, Kevin McGinnis, *Comments*, at 2 (Dec. 15, 2014).

<sup>8</sup> APCO NENA Carrier Cover Letter Roadmap for Improving E911 Location Accuracy, *Letter*, at 10 (Nov. 17, 2014).

this process will provide significant improvements in the ability of field responders – particularly those operating in urban environs – to locate 9-1-1 callers in tall buildings.<sup>9</sup>

**IV. Basing carrier compliance metrics on testing and live 9-1-1 call data is consistent with NENA’s desire for improved transparency.**

When we filed our initial comments in this proceeding, NENA could not have known that a compliance regime based on live 9-1-1 call data would be possible.<sup>10</sup> Moving away from proprietary testing of location accuracy performance to calculations based on real-world technology performance and real data on how often individual technologies are used is truly a sea change in how NENA and our members can view location accuracy compliance. In our view, this transition will bring long sought-after transparency to a process that has been deeply confusing and mysterious for front-line 9-1-1 personnel.<sup>11</sup> With access to information about how a given fix is obtained, 9-1-1 centers will be better able to make key judgments about which location data (e.g., Lat/Lon or DL) to value – and which to suspect – on a call-by-call basis. NENA believes that the availability of this key check on carrier performance will do much to allay the fears and suspicions of the 9-1-1 community with respect to whether carriers are meeting their location performance obligations.

On an aggregate basis, such call data will prove even more valuable: With technology-by-technology discount rates determined by real-world testbed performance,

---

<sup>9</sup> *Accord* NENA: The 9-1-1 Association, *Comments* at 20-23 (May 14, 2014).

<sup>10</sup> NENA: The 9-1-1 Association, *Comments* at 26-28 (May 14, 2014) (focusing on “outdoor testing and indoor performance certification.”)

<sup>11</sup> NENA: The 9-1-1 Association, *Comments* at 24 (May 14, 2014).

NENA believes that carriers will be required to exert significant effort to meet the aggressive compliance fractions required by the agreement. For example, many estimates of the fraction of Wireless E9-1-1 calls that originate from indoors place that figure at or above 70% today. Moreover, data from the CDC indicates that that figure is likely increasing as more consumers “cut the cord” and transition to wireless-only households. Consequently, NENA believes that the fraction of indoor test points utilized in the testbed, coupled with a precision requirement similar to that adopted in the prior CSRIC testing, will ensure that meeting the Roadmap’s requirements is not a trivial undertaking. Altogether, then, NENA believes that the Roadmap’s provisions represent a significant improvement over the status quo, and one that justifies the Commission’s support as contemplated in the Third FNPRM.

### CONCLUSION

The Commission should adopt final rules consistent with its analysis in the *Third Further Notice of Proposed Rulemaking* and the *Second Further Notice of Proposed Rulemaking*, with such changes as proposed by the Roadmap.

TELFORD E. FORGETY, III  
*Attorney*

DECEMBER 2014