

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of: )  
 )  
Wireless E911 Location Accuracy ) PS Docket No. 07-114  
Requirements )  
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**THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL  
OPPOSITION TO CTIA PETITION FOR RECONSIDERATION**

The National Public Safety Telecommunications Council (NPSTC) submits this Opposition to the Petition for Reconsideration submitted by CTIA in this proceeding.<sup>1</sup> NPSTC urges the Commission to maintain its previously adopted deadlines for implementation of the +/- three meter vertical location (z-axis) accuracy metric.

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<sup>1</sup> *Petition for Reconsideration*, PS Docket No. 07-114, submitted by CTIA September 28, 2020. Notice of the CTIA petition was published in the Federal Register October 19, 2020, which established the timeline for oppositions and replies to oppositions.

## **The National Public Safety Telecommunications Council**

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of being a resource and providing advocacy for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 16 organizations serve on NPSTC's Governing Board:

- American Association of State Highway and Transportation Officials
- American Radio Relay League
- Association of Fish and Wildlife Agencies
- Association of Public-Safety Communications Officials-International
- Forestry Conservation Communications Association
- International Association of Chiefs of Police
- International Association of Emergency Managers
- International Association of Fire Chiefs
- International Municipal Signal Association
- National Association of State Chief Information Officers
- National Association of State Emergency Medical Services Officials
- National Association of State Foresters
- National Association of State Technology Directors
- National Council of Statewide Interoperability Coordinators
- National Emergency Number Association
- National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Emergency Communications Division, the Office for Interoperability and Compatibility, and the SAFECOM Program); Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, Communications Technology Program). Also, Public Safety Europe is a liaison member. NPSTC has relationships with associate members: The Canadian Interoperability Technology Interest Group (CITIG) and the Utilities Technology Council (UTC), and affiliate members: The Alliance for Telecommunications Industry Solutions (ATIS), Open Mobile Alliance (OMA), Telecommunications Industry Association (TIA), TETRA Critical Communications Association (TCCA), Project 25 Technology Interest Group (PTIG), the Government Wireless Technology & Communications Association (GWTCA) and the Safer Buildings Coalition (SBC).

#### **NPSTC Opposition to CTIA's Petition**

NPSTC views location accuracy to be very important to first responders and the public they serve. Timing is key in a life or death situation in answering a 911 call. Expedient arrival of first responders requires that they have accurate information on the location where help is needed. For multi-story facilities, that requires both the address of the building and the floor level where the caller is located.

NPSTC commends the Commission for its decision in the Fifth Report and Order that established the vertical location (z-axis) metric at +/-three meters and in the Sixth Report and Order that reaffirmed that decision. With this decision, nationwide CMRS providers shall deploy either dispatchable location, or z-axis technology that complies with the +/- three meter metric, in the top 25

cellular market areas (CMAs) by April 3, 2021, and in the top 50 CMAs by April 3, 2023.<sup>2</sup>

CTIA has petitioned the Commission to delay these established deadlines. The CTIA petition states that the COVID 19 pandemic has stalled any ability to validate testing whether Z-axis location solutions can meet the Commission's benchmarks. Given the importance of 911 location accuracy to public safety and the years of testing already conducted, NPSTC opposes CTIA's Petition for Reconsideration that would further delay 911 location implementation.

The location technology has been studied and tested for years and proven in CTIA's Test Bed. NPSTC and the majority of the national public safety organizations support implementing the +/- three meter metric for the near term because it will speed emergency response arrival, help protect first responders while they're doing their jobs, and most importantly, save lives.

NPSTC's members continue to address firsthand the devastating impact of the virus on individuals and our communities, so CTIA's difficulties in completing the Stage Zb testbed is not surprising. The indefinite delay of Stage Zb testing, however, cannot form the basis of an extension of the long awaited April 2021 deadline for the provision to public safety of three meter accuracy vertical location data in the largest 25 cities. The April 2021 deadline was adopted more than five years ago based on the recommendations of the carriers in their Roadmap proposal. The carriers have had more than adequate time to complete the testing and implementation necessary to comply with the deadline. Beginning as early as 2012, vertical location technologies that can achieve three meter accuracy have been successfully verified numerous times in independent test beds.

The carriers also have sufficient options to comply with the April 2021 deadline. The Commission confirmed that "[t]wo vendors have consistently shown in testing that they can meet or

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<sup>2</sup> *Fifth Report and Order*, APPENDIX A – Final Rules, Section 9.10, 911 Service Requirements.

surpass [the 3 meter] standard.”<sup>3</sup> The Commission found that NextNav’s vertical location technology is capable of “consistent performance within an accuracy metric of 3 meters or less” and that “Polaris too can achieve accuracy within 2.8 meters for 80% of test calls by using additional available location data to recalibrate and refine its Stage Z data.”<sup>4</sup> The Commission therefore concluded that no further testing is needed on these two technologies and acknowledged that further delay for such testing would pose an unnecessary risk to public safety with no clarity that it would “appreciably improve” the data that is currently available.<sup>5</sup>

Instead, the purpose of maintaining an ongoing test bed was to provide a mechanism for additional technologies to prove they can achieve the three meter requirement for 80 percent of calls. To this end, the carriers only recently completed their Stage Za test bed, which, while highlighting the continued progress of a third vendor, documented that its technology failed to meet the necessary accuracy standard. In response, the carriers proposed that the deadline for achieving three meter accuracy for 80 percent of calls be extended until April 2025 to provide time for additional vendors to improve their technology to meet the requirements. The public safety community strongly objected to this proposed four year delay and the Commission concurred. In that same spirit, CTIA’s postponement of the Stage Zb test bed does not preclude deployment of currently compliant technologies to meet the April, 2021 milestone.

The COVID-19 pandemic has increased the need for highly accurate vertical location information to support public safety, and preparations are already being made by the public safety community for its implementation early next year. Therefore, although additional testing of new technologies is desirable and should be encouraged, the Commission should reject out of hand

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<sup>3</sup> Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, PS Docket No. 07-114, released November 25, 2019, at paragraph 11.

<sup>4</sup> Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, at paragraphs 11 and 12.

<sup>5</sup> Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, at paragraph 19.

any suggestion that the postponement of the Stage Zb test bed could warrant an extension of the April 2021 deadline.

It is imperative that following the April 2021 milestone, public safety will benefit from the improved location information. Public safety professionals should immediately be able to verify carriers' compliance by, for example, taking ten devices that are capable of reporting vertical location without a hardware upgrade (z-axis capable handsets), placing ten test 9-1-1 calls from each device, and seeing that at least 80 of the calls are delivered with 3-meter vertical accuracy or better.

The location accuracy issue has already spanned nine years of regulatory, public safety and industry involvement. As noted in the Fifth Report and Order in 2011, the Commission tasked the Communications Security, Reliability, and Interoperability Council (CSRIC) with testing indoor location accuracy technologies, including barometric pressure sensors, in a test bed. Based on the results of testing, in 2014 the Commission proposed measures and timeframes for indoor 911 location accuracy, including a +/- three meter z-axis metric. The Commission adopted rules in 2015, but those rules did not include the specific z-axis metric that nationwide CMRS operators could use in lieu of providing dispatchable location.

Subsequently, the nationwide carriers regressed from the Commission's 2014 proposal, recommending a less accurate z-axis metric with +/- five meter accuracy. The Commission sought comment on this step backward. NPSTC and others in the public safety community responded that the +/- five meter level of accuracy was totally inadequate, and instead recommended a requirement for floor level accuracy. NPSTC commented with several scenarios that depicted the impact of a +/- five meter accuracy margin on 911 callers in distress and on public safety first responders working to locate them.

Accordingly, NPSTC appreciates the Commission's rule adopted in the Fifth Report and Order for an accuracy metric of +/- three meters. The progression above shows the time-lag already expended for the regulatory process to establish a z-axis metric and the benchmark timelines for implementation.

**Conclusion**

NPSTC urges the Commission to deny the CTIA Petition for Reconsideration. There have been years of regulatory activity and pages upon pages of "talk." Public safety and the public it serves does not need more "talk." Instead we need real action that implements 911 vertical location accuracy with the metrics and timelines required under the current rules.

Ralph A. Haller, Chairman



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