

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Public Safety and Homeland Security Bureau Seeks Comment on Vertical (Z-Axis) Accuracy Metric Proposed by the Nationwide Wireless Carriers)	PS Docket No. 07-114
)	
)	

**REPLY COMMENTS OF
THE INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS**

The International Association of Fire Fighters (IAFF) now replies to the comments previously filed in response to the Commission’s Fourth Further Notice of Proposed Rulemaking on adopting a z-axis metric of 3 meters for wireless calls to E911 emergency services.

Leading up to the Commission’s adoption of its Fourth Report and Order in 2015, the IAFF filed comments that strongly urges the Commission not to allow “perfect to be the enemy of the good!”¹ Since then, various parties have referenced this quote (or some version thereof), but the repetition is clearly warranted in this proceeding.

The Commission has proposed to adopt and enforce a requirement that wireless carriers provide fire fighters and other emergency first responders with vertical location information for wireless callers to E911 that must be accurate within 3 meters for 80 percent of calls. If the FCC adopts this proposal, fire fighters and emergency responders in major cities could begin benefiting from this location information within two years. The

¹ Comments of the International Association of Fire Fighters, PS Docket No. 07-114, at 7 (May 9, 2014).

tangible impact that this would have on life saving response times for individuals in distress would be enormous. As just one example, the likelihood of survival and recovery for a heart attack victim is increased substantially with a reduction by only a few minutes in the time it takes to locate the individual and begin performing lifesaving treatment following their call to E911. As the IAFF noted in its recent comments, search and rescue drills performed by IAFF members in San Francisco in 2014 showed that the availability of vertical location information reduced search times in large buildings from as little as several minutes to more than 15 minutes.²

It is inconceivable to the IAFF that either the Commission or the public safety community would allow themselves to get this close to achieving a historic benefit in the capabilities of emergency services and so much as hesitate in taking the next step. In recognition of the Commission's statutory obligation to safeguard the public interest, the Commission has no choice but to immediately adopt a 3 meter metric for vertical location accuracy and require wireless carriers to implement this requirement, or a dispatchable location solution, in the largest 25 cellular market areas ("CMAs") by April 2021 and in the top 50 CMAs by April 2023.

In pressing for this outcome, the IAFF acknowledges that, as presented by some parties, an accurate and comprehensive dispatchable location solution might provide even further benefits to emergency response times for wireless E911 callers located in large buildings. Recent field tests, however, have raised significant questions about whether a dispatchable location solution that relies on the National Emergency Address

² See Comments of the International Association of Fire Fighters, PS Docket No. 07-114, at 2-3 (May 20, 2019).

Database (“NEAD”) will ever be able to provide sufficient accuracy to offer a reliable tool for use by emergency personnel.³ Indeed, even with a test environment favorably designed to support positive results, the NEAD solution returned an address in a completely different building nearly as frequently as it correctly identified the DL2 location of the actual caller (*i.e.*, the door to kick down).⁴

Faced with the NEAD’s questionable technical performance, it is surprising that one party urges the Commission to eliminate the vertical accuracy metric and rely exclusively on an address-based dispatchable location solution. Continued pressure to improve the NEAD and other address-based solutions are certainly warranted and understandable, but should not come through the exclusion of the only technical approach proven to date to achieve the Commission’s objectives. Numerous independently managed field tests have clearly demonstrated that coordinate-based location solutions employing calibrated barometric pressure sensors can achieve vertical location accuracy of within 2 meters for a very high percentage of wireless calls to E911. Therefore, the adoption of a 3 meter vertical metric is both technically feasible and can reasonably be implemented within the 2021 and 2023 milestones already established.

The wireless carriers themselves appear to acknowledge that the adoption and implementation of a 3 meter metric serve the public interests and promotes public safety. AT&T expressed support for the adoption of a z-axis location metric of 3 meters because

³ See E911 Location Test Bed Dispatchable Location Summary Report, ATIS Test Bed Program Management (April 2019).

⁴ See *id.* at 10 (explaining that only 9.6% of test calls successfully reported a DL2 dispatchable location and was correct in that report, while 8.6% of test calls reported a street address that was demonstrably incorrect, reflecting entirely different buildings).

it will “more accurately enable first responders to identify the floor level for most 911 calls, reduce emergency response times, and save lives.”⁵ Verizon also explained that it “supports the Commission’s proposed 3-meter Z-axis metric” observing that it “is a good target for 9-1-1 calls from devices with the necessary capability.”⁶ And even CTIA acknowledged that the Commission’s 3 meter proposal “offers a reasoned approach to the definition of floor level accuracy as part of the proposed z-axis metric.”⁷

Importantly, the other two major wireless carriers did not overtly oppose the Commission’s 3 meter metric proposal. Sprint did not file any comments and T-Mobile’s comments carefully avoided directly opposing the adoption of a 3 meter metric, explaining instead that it “supports the Commission’s efforts to incentivise all providers to improve the provision of location information for emergency calls from wireless callers.” Further, T-Mobile argues that the Commission must ensure that wireless carriers are given flexibility in the technical solutions that they employ.⁸

Of course, the Commission already has adopted rules that provide flexibility for wireless carriers in implementing indoor location solutions. The carriers are permitted to choose between a dispatchable location solution or providing vertical location information that is accurate within the metric that results from this proceeding, regardless of the technical approach they use in achieving that metric. If any further flexibility is warranted, the Commission might consider giving wireless carriers the option to satisfy the 3 meter

⁵ Comments of AT&T Services, Inc., PS Docket No. 07-114, at 1-2 (May 20, 2019).

⁶ Comments of Verizon, PS Docket No. 07-114, at 2 (May 20, 2019).

⁷ Comments of CTIA, PS Docket No. 07-114, at 9 (May 20, 2019).

⁸ Comments of T-Mobile USA, Inc., PS Docket No. 07-114 at 1 and 13 (May 20, 2019).

vertical location metric using 80% of the buildings in excess of three stories (rather than 80% of the population) in the top 25 and 50 CMAs, as suggested by Verizon and NextNav.⁹ Regardless of the choices made by the wireless carriers, of course, the carriers must ensure that they actually provide actionable and accurate location information for use by emergency personnel, not merely meet minimum regulatory compliance metrics.

Meanwhile, the Commission should provide regulatory certainty for the wireless industry and a clear path for emergency personnel and the public to a significant advancement in emergency response times by promptly adopting a vertical location metric of 3 meters and requiring its rapid implementation in the top 25 and 50 CMAs. Such action is necessary to save countless lives and also to help protect the safety of emergency personnel performing rescues in extremely hazardous conditions.

Thank you for your consideration of these reply comments.

Sincerely,

A handwritten signature in blue ink that reads "Harold A. Schaitberger". The signature is fluid and cursive, with the first name "Harold" being the most prominent part.

Harold A. Schaitberger

General President

June 18, 2019

⁹ See Comments of Verizon, PS Docket No. 07-114 at 5 (May 20, 2019); Comments of NextNav, LLC, PS Docket No. 07-114, at 19 (May 20, 2019).