



July 14, 2014

BY ELECTRONIC DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street S.W.
Washington D.C. 20554

Re: WT Docket No. 07-114 – Wireless E911 Location Accuracy Requirements

Dear Ms. Dortch:

The San Francisco Fire Department, the International Association of Fire Fighters (IAFF) Local 798 and the San Francisco Department of Emergency Management Division of Emergency Communications (collectively "San Francisco Public Safety") share a common public mission to provide the highest possible level of life and property protection for the people and visitors of San Francisco. Together, we protect against and prevent fires, hazardous materials incidents, and disasters both natural and manmade, as well as saving lives by providing emergency medical aid and related services.

As part of this shared duty, San Francisco Public Safety is interested in ways to assess the benefits of the availability of vertical location information for 911 callers. Approached with the ability to test these potential benefits directly, we worked with a provider of this technology to set out to compare the time required to locate a 911 caller when first responders are provided only traditional two-dimensional location information with the time required when 911 location information is augmented with z-axis location.

The exercise was conducted on July 9, 2014. Teams of first responders from the San Francisco Fire Department were instructed to search two high rise buildings to locate markers that had been hidden somewhere in the building. The teams were led by Clifton Hong (Inspector, Bureau of Fire Inspector) and Roger Ng (Inspector, Bureau of Fire Inspector). Team A was dispatched with only traditional horizontal location information. Team B was dispatched with both horizontal and vertical location information. Team B was also provided a smartphone equipped with beacon location technology developed by NextNav, LLC to assist Team B in determining its vertical position. The teams' response times for each building were recorded from the time of dispatch until each team located the marker.

The two buildings used to conduct the test were 201 Spear Street (19 stories) and One Embarcadero Center, San Francisco (45 stories), shown below in the photos that were included in the CSRIC III test report. Both buildings were previously used by the Federal Communications Commission (FCC) chartered Communications Security, Reliability and Interoperability Council (CSRIC) III Working Group 3 for testing location accuracy in the fall of 2012 and were representative of buildings in the dense urban environment. The test was run twice, with the two teams switching buildings for the second test.



Figure 5.1.2-3. Bldg. 3: 201 Spear Street, SF



Figure 5.1.2-6. Bldg. 16: One Embarcadero Center, SF

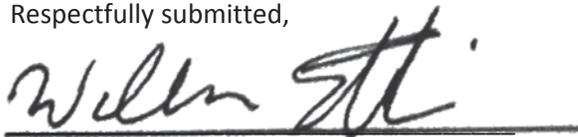
The results of the tests indicate a significant improvement in search time when first responders are provided access to accurate vertical location information.

	BUILDING 1	BUILDING 2
TEAM A	7 minutes 6 seconds	19 minutes 11 seconds
TEAM B w/ Vertical	3 minutes 26 seconds	2 minutes 18 seconds

As the Commission has acknowledged, these time differences can have real impacts on the effectiveness of emergency response, and on the health outcomes for victims. Even this limited test provides a clear demonstration in support of the Commission’s conclusion that dispatching first responders with vertical location information can significantly improve public safety, particularly in dense urban areas. Accurate locational data is of the utmost importance for public safety, and vertical location information has the potential to be an important component of that data, along with immediate and accurate latitudinal and longitudinal information.

The Commission's proposed rules are widely supported by all major public safety organizations and the undersigned reaffirm their collective support and urge the Commission to adopt its proposed location accuracy rules as soon as possible.

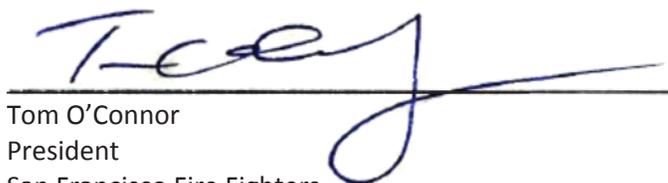
Respectfully submitted,



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