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

In the Matter of:	)	
	)	
Wireless E911 Location Accuracy Requirements	)	PS Docket No. 07-114
	)	
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Association of Public-Safety Communications Officials-International, Inc. Request for Declaratory Ruling	)	
	)	
911 Requirements for IP-Enabled Service Providers	)	WC Docket No. 05-196

TO: The Commission

COMMENTS OF UNITED STATES CELLULAR CORPORATION

United States Cellular Corporation ("USCC"), by its undersigned attorney, hereby submits its comments in response to Section III A of the above-referenced Notice of Proposed Rulemaking ("NPRM"). While USCC supports the Commission's goal of improving the accuracy of location information provided to PSAPs, it does not support the FCC's proposal to require location accuracy compliance at the PSAP level at this time. Instead, USCC urges the Commission to require location accuracy compliance at the MSA and RSA level - - a proposal that APCO itself supported until very recently.

I. INTRODUCTION & SUMMARY

USCC is classified as a Tier II wireless carrier and serves both urban and rural markets. USCC is committed to the safety of its customers and has spent millions of dollars and dedicated substantial personnel resources to accelerate deployment of E911 service and GPS-capable

handsets throughout its service area. USCC owns over 40 MSA and 100 RSA licenses and has deployed Phase II E911 service to 705 PSAPs in 23 states.

Although not currently required by the FCC's rules, USCC has always ensured compliance with the FCC's location accuracy requirements at the switch level. In other words, USCC tests and modifies its network operation to ensure that the location information provided to each PSAP served by any of the 36 switches in its Phase II deployed markets complies with the FCC's location accuracy requirements. Because USCC uses more than one switch in many of the states in which it has deployed Phase II service, the E911 location accuracy information USCC provides to PSAPs in these states is more precise than information provided on a statewide basis.

II. THE COMMISSION SHOULD NOT REQUIRE LOCATION ACCURACY COMPLIANCE AT THE PSAP LEVEL

USCC's experience in providing more precise location information and testing the accuracy of that information demonstrates that the FCC should not require location accuracy compliance at the PSAP level at this time. To USCC's knowledge, today's location determining technology cannot deliver the accuracy required by the FCC's rules at the PSAP level on a consistent basis. The National Association of State 9-1-1 Administrators ("NASNA") recognized the limitations of this technology in a letter it filed with the FCC opposing APCO's insistence on a rule requiring location accuracy compliance at the PSAP level :

> [U]nfortunately wireless location accuracy is currently limited by the available technology. **There is no silver bullet solution for the provision of Phase II service**. Each solution has its limitation – whether that Achilles Heel is inside structures, rural areas or something else.[1]

[1] *See Letter to Chairman Kevin Martin from Steve Marzolf, President of National Association of State 9-1-1 Administrators*, dated September 19, 2005 (emphasis added) ("*September 2005 NASNA Letter*").

Although these comments were submitted to the FCC in September 2005, they are still applicable today – there is no field-tested solution that allows carriers to deliver FCC-compliant location accuracy information to every PSAP on a consistent basis.

A. The Commission Should Not Adopt A Location Accuracy Rule That The Industry Cannot Readily Comply With

Given that there are no proven technological solutions to overcome the limitations of either the handset and network solutions at this time, the Commission should not adopt a PSAP level location accuracy requirement because the industry does not have the resources to comply with such a requirement. Although adopting a PSAP level rule may appear to be the best way to force the development of improved technologies that will allow carriers to provide more accurate location information, this action by the Commission will set in motion a series of unavoidable reactions that will ultimately delay any material improvement in the accuracy of location information provided to PSAPs.

As noted above, USCC tests for location accuracy at the switch level. USCC and its E911 vendor Intrado currently conduct manual drive testing twice a year at the 36 CDMA switches serving areas where Phase II service has been deployed. In each test, between 20-30 test points are used, resulting in a total of approximately 1800 test points each year. If the Commission adopts a rule requiring that USCC provide and verify FCC-compliant location accuracy information to all 705 PSAPs currently receiving Phase II service, the number of USCC's annual test points and related testing costs would skyrocket, anywhere from 200 to 500 percent, depending on the accuracy requirement ultimately adopted by the FCC and the

frequency of the required testing. USCC simply does not have the resources to conduct manual accuracy testing on this massive scale.[2]

USCC's situation is in no way unique. Any carrier relying on a network-based Phase II solution serving rural markets will also presumably not have the resources to comply with a PSAP-level location accuracy requirement. In rural areas served by a small number of cell sites, the Commission is well aware of the limits of a network-based solution due the inability to triangulate on an E911 caller. The resources needed to eliminate this problem for every rural PSAP in a carrier's service area would be massive and certainly beyond the current or near term resources of virtually any carrier, regardless of size.

By adopting a rule that most, if not all, carriers will presumably violate as soon as it becomes effective, the Commission will force carriers to devote significant resources challenging the imposition of the rule and/or defending any claim that they have violated the rule. The carriers will be forced into this position not only to defend their licenses before the FCC but also because they could face state law tort claims based on the inability to comply with the Commission's location accuracy rules. These events will provide a disincentive for carriers to cooperate with PSAPs in sharing location information and divert resources from the effort to develop the technology that will allow carriers to generate compliant location accuracy information at the PSAP level.

NASNA recognized as much in its opposition to APCO's insistence on a rule that required PSAP-level location accuracy:

> Requiring PSAP level compliance will simply make most every carrier, if not all carriers, subject to enforcement action, which will divert resources (including FCC resources) and attention from where it needs to be – on deployment."[3]

[2] While USCC acknowledges that automated location accuracy testing devices may someday be available, there are no such devices available today that have been successfully tested and deployed in the field.

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> The test of compliance needs to be reasonable and achievable for those that did what we asked them to do [i.e. deploy Phase I and Phase II]. To do otherwise will condemn us all to the legal and regulatory wrangling that occupied the first several years of 94-102 and divert resources and attention from deployments, just as it did then.[4]

The National Emergency Number Association made a similar observation opposing APCO's insistence on PSAP-level location accuracy:

> 9-1-1 is truly a public-private partnership in which all parties must work together in the spirit of collaboration and cooperation. All parties will not agree one hundred percent of the time, but we cannot tolerate an adversarial mentality. . . . **Past history of interaction between PSAPs and wireless carriers shows clearly that a managed, collaborative approach to service improvement results in more progress in a shorter time than does unmet unilateral expectations and exhausting legal conflicts.**[5]

As discussed in the next section, USCC submits there is a better approach to achieve the Commission's goal of improving the accuracy of the location information provided to PSAPs.

B. <u>The Commission Should Require Location Accuracy Compliance At The MSA and RSA Level</u>

Rather than imposing a currently unattainable rule on the industry, USCC urges the Commission to require location accuracy compliance at the MSA or RSA level. Requiring compliance at the market level narrows the focus of the location information provided to the PSAP to an area that more closely corresponds to the geographic area in which a typical wireless customer uses his or her handset.

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[3] *See September 2005 NASNA Letter* at 1-2; *see also Letter to Chairman Martin from Chuck Canterbury, National President of the Fraternal Order of Police* at 1 ("the position of the Association of Public Safety Communications Officers International (APCO) is counterproductive to the overall dialogue and the deployment of these innovative E911 capabilities . . . .").

[4] *Id.* at 2.

[5] *See Letter to Chairman Martin from Bill McMurray, President of National Emergency Number Association* at 2, dated May 26, 2005 (emphasis added).

Indeed, shortly after submitting its initial request for clarification that the Commission's rules required location accuracy compliance at the PSAP level, APCO recognized the technological realities and modified its request:

> Since filing its Request, APCO has had an opportunity to examine this issue in further detail, and now proposes that the Metropolitan Statistical Areas (MSAs) and Rural Statistical Areas (RSAs) may provide appropriate boundaries. State-wide compliance testing (as suggested by NRIC VII) is not acceptable, as many states encompass huge areas with greatly divergent geography and population density. MSAs and RSAs are widely accepted and frequently used geographic areas that the FCC has often turned to in its regulations. Moreover, there will usually be relatively uniform population density within a MSA and RSA (unlike a state, in which population could be widely divergent). Thus, the average accuracy over an MSA or RSA is likely to be in the same general range as the accuracy at any specific location (or PSAP) within the MSA or RSA.[6]

USCC wholeheartedly agrees with APCO's determination that requiring location accuracy at the MSA and RSA level is a better alternative than requiring location accuracy at the PSAP level and submits that this determination is no less appropriate today. From USCC's perspective, several factors, many of which were recognized by APCO, warrant the adoption of a rule requiring compliance with the FCC's accuracy requirements for location information at the MSA or RSA level:

- MSAs and RSAs are widely accepted, easily identified and verifiable;
- By contrast, the boundaries served by a PSAP are not easily identified or verifiable;
- Due to uniform population density within most MSAs and RSAs, the accuracy information reported over the market is likely to be in the same general range as location accuracy at the PSAP level;
- Due to technological limits and/or resource constraints, no carrier can currently comply with a requirement that location

[6] *See* Supplement to APCO Request for Declaratory Ruling, Docket 94-102, at 3-4, filed February 4, 2005.

information provided at the PSAP level be compliant with FCC's location accuracy rules.

For all these reasons, the Commission should forego the imposition of a PSAP-level location accuracy requirement and instead require carriers to provide compliant location information at the RSA or MSA level.

III. THE COMMISSION SHOULD PERMIT PSAPS AND WIRELESS CARRIERS TO MODIFY THE LOCATION ACCURACY GEOGRAPHIC AREA REQUIREMENT

Regardless of the geographic area the Commission ultimately selects for location accuracy compliance, the Commission should allow PSAPs and wireless carriers to modify the requirement by separate agreement. The Commission has followed this approach successfully in the Phase I and Phase II build-out stage. The policy has worked in significant part because it allowed the parties to work cooperatively to foster the deployment of E911 service.

As noted above in the comments of both NASNA and NENA, that same level of cooperation is also needed to develop the technology to produce more accurate location information on a reliable basis. Because Phase II services are deployed at the local level, utilized at the local level and responded to at the local level, it makes eminent sense to allow local PSAP officials working with wireless carriers to identify the geographic area that makes most sense for location accuracy compliance and testing.

IV. CONCLUSION

For all these reasons, USCC urges the Commission not to adopt a PSAP-level location accuracy requirement at this time. While the objective of improving the accuracy of the location information delivered to PSAPs is laudable, the approach of adopting a rule that most, if not all, carriers will violate as soon as it becomes effective will distract both the industry and the Commission from the ultimate goal of improving the overall safety of the public.

Respectfully submitted,

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