

New collection entitled: Wireless E911 Location Accuracy Requirements

SUPPORTING STATEMENT

A. Justification: _

1. In a *Second Report and Order*, released September 23, 2010, the Commission amends its requirements for E911 Phase II location accuracy for both handset-based and network-based wireless carriers. The *Second Report and Order* requires wireless licensees subject to Section 20.18(h) of the Commission's rules to satisfy amended location accuracy standards in connection with 911 emergency calls at either a county-based or PSAP-based geographic level. The *Second Report and Order* adopts interim benchmarks for handset-based and network-based wireless carriers to comply with the amended location accuracy requirements. The *Second Report and Order* provides, however, that handset-based wireless carriers may exclude up to 15 percent of the counties or PSAP areas they serve due to heavy forestation that limits handset-based technology accuracy in those counties or areas. The Commission found that permitting this exclusion properly but narrowly accounts for the known technical limitations of handset-based location accuracy technologies, while ensuring that the public safety community and the public at large are sufficiently informed of these limitations. The *Second Report and Order* provides a similar exclusion for network-based carriers that permits them to exclude particular counties, or portions of counties, where triangulation of the geographical position of a 911 emergency call is not technically possible, such as locations where at least three cell sites are not sufficiently visible to a handset.

The *Second Report and Order* requires both handset-based and network based carriers to file a list of the specific counties or portions of counties where they are utilizing their respective exclusions within 90 days following approval from the Office of Management and Budget for the related information collection. The lists must be submitted electronically into PS Docket No. 07-114, and copies must be sent to the National Emergency Number Association, the Association of Public-Safety Communications Officials-International, and the National Association of State 9-1-1 Administrators. For network-based carriers, the exclusion will sunset on [8 years after effective date] of the rule providing for the exclusion.

The Commission needs OMB approval for the new collection and reporting requirement for these exclusions to keep the Commission, public safety organizations, and state and local jurisdictions informed of the specific counties and areas in those counties where wireless carriers are unable to comply with the Commission's amended location accuracy requirements. The information sought in this information collection is also needed to enable the Commission to ensure that all wireless licenses are compliant with the amended location accuracy standards by the end of newly adopted benchmark periods.

Further, the *Second Report and Order* requires wireless carriers and other entities responsible other responsible for transporting confidence and uncertainty data between the wireless carriers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency service

providers (collectively, System Service Providers (SSPs)) to provide the confidence and uncertainty data to PSAPs on a per call basis upon PSAP request beginning at the end of year two of the benchmark periods for both handset-based and network-based carriers. The transport of this data is needed to ensure the Commission's effort to achieve the significant improvements in the location accuracy of E911 service.

In view of the newly adopted benchmarks and amended location accuracy requirements, the Commission recognized that the waiver process is suitable to address individual or unique problems, where the Commission can analyze the particular circumstances and the potential impact to public safety. Thus, the Commission recognized that wireless carriers might file waiver requests, therefore constituting a collection and reporting requirement. The Commission noted that financial considerations, among others, will be taken into account should a service provider request waiver relief. Additionally, the *Second Report and Order* provides that an SSP that does not pass confidence and uncertainty data to PSAPs must demonstrate in a request for waiver relief that it cannot pass this data to the PSAPs due to technical infeasibility.

For this information to OMB, the Commission is requesting approval of the new collection and reporting requirements to obtain the full three year clearance from OMB.

Statutory authority for this collection is contained in Sections 1, 4(i), and 332 of the Communications Act, as amended, 47 U.S.C. §§ 151, 154, and 332.

As noted on the Form OMB 83-i, this collection of information does not affect individuals or households; thus, there are no impacts under the Privacy Act.

2. The information provided by the wireless carriers to report the counties or portions thereof where the carriers cannot provide E911 location accuracy at either the county or the PSAP level will furnish the Commission, affected PSAPs, state and local emergency agencies, public safety organizations and other interested stakeholders the supplementary data necessary for public safety awareness of those areas where it is most difficult to measure location accuracy during the benchmark periods for either network-based or handset-based wireless carriers.

The provision of confidence and uncertainty data to PSAPs by wireless carriers and SSPs will enhance the PSAPs' ability to efficiently direct first responders to the correct location of emergencies to achieve the emergency response goals of the nation in responding expeditiously to emergency crisis situations and in ensuring homeland security.

The filing of waiver requests may be needed to provide the Commission and the public safety community, including public safety organizations and state and local jurisdiction and PSAPs, awareness of the wireless carriers and SSPs that are experiencing an inability to comply with the amended location accuracy requirements. The Commission declined at this time to adopt any changes to the Commission's existing waiver criteria, which have been sufficient to date in addressing particular circumstances on a case-by-case basis and remain available to all carriers. Further, the Commission expected that the rule changes allowing for handset-based and network-based carriers to claim exclusions based on the specified limitations should minimize

the need for waiver relief. In addition, the revised benchmarks are based on an eight-year compliance period, with the earliest benchmark not taking effect until one year following the effective date of the Second Report and Order. Also, the Commission clarified that the revised location accuracy requirements do not apply to indoor use cases.

3. The information may be filed electronically.

4. No similar data is available elsewhere.

5. In conformance with the Paperwork Reduction Action of 1995, the Commission allows 100% of respondents to file their information electronically. The Commission has limited the information requirements to that necessary for evaluating the incoming data.

6. The information collected will assist the Commission in ensuring public safety and administrative objectives for the different parts of the collection that improve the capabilities of Public Safety Answering Points (PSAPs) throughout the nation. If the collections seeking information from wireless carriers on which counties and parts thereof they seek to exclude from the location accuracy requirements were not approved, the finding of the Commission based on the record indicates that more open-ended approaches advocated by commenters may lead to overuse or abuse of exceptions and potentially harm public safety. Without the required filing of exclusions, the public safety community and the general public would not be aware of the instances where carriers cannot meet the Phase II location accuracy requirements. Moreover, absent the collection of exclusion reports, the Commission would lack the capability to monitor progress at each benchmark and to seek the necessary status information. Further, timely monitoring by the Commission requires that carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes.

In addition, regardless of whether a carrier employs handset-based or network-based location technology, the Commission found that that confidence and uncertainty data in delivering wireless 911 calls is useful for PSAPs in all cases, and that it is both technologically feasible and in the public interest to require both handset-based and network-based carriers to provide confidence and uncertainty data. The record indicated to the Commission that the use of confidence and uncertainty data improved PSAPs' ability to assess the validity of each call's location information based on real time information about the quality of the location calculation and to deploy public safety resources based on the improved reliability of the location fix.

7. The proposed new data collection is consistent with 5 CFR 1320.6. Concerning the list of exclusions that the collection requires wireless carriers to report, these carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes.

8. The Commission published a 60-day notice soliciting public comment which appeared in the Federal Register on December 3, 2010 (75 FR 75464). No comments were received.

9. There are no payments or gifts to respondents.

10. No questions of a confidential nature are asked.

11. There are no questions of a sensitive nature.

12. The following is provided for burden estimates. These estimates are based on FCC staff's knowledge and familiarity with the availability of the data, information, and showings required. The new rules will take effect only after OMB approval of the information collection requirements.

First, the wireless carriers affected must submit initial reports within 90 days after the effective date listing the areas that they are permitted to exclude under the new rules, as set forth in paragraphs 28 and 45 of the *Second Report and Order*. For purposes of this PRA analysis, the Commission assumes that both carriers with handset-based solutions and those with network-based solutions will be filing reports listing these areas. The initial reports listing the areas excluded must be submitted electronically into the required docket in this proceeding with copies also sent either in electronic or paper form to three public safety organizations. The Commission assumes that carriers making the exclusion reports will provide at least twice year (including initial report in the first year) the necessary updated reports within 30 days of any changes. The reports submitted into the docket and the copies to the public safety organizations can be made at the same time and submitted at the same time, meaning that the burden hours and costs will be all-inclusive for a submission listing the exclusions or any changes.

The Commission, for purposes of estimating the PRA burdens, predicts that 2,500 wireless carriers will file exclusion reports. The Commission estimates that each exclusion report will take an in-house staff engineer and a staff clerical assistant on average approximately three hours together. The average of three hours assumes that (1) the initial exclusion report will take more time but subsequent reports providing changes will take less and (2) the in-house staff engineer at \$150 an hour and a staff clerical at \$15 an hour assistant will each spend an hour and a half. All 2,500 carriers filing two reports per year = 5,000 reports per year. At 3 hours per report, the total burden hours would then be **15,000 total burden hours** annually. The total cost per submission will be $\$150 \times 1.5 \text{ hrs.} + \$15 \times 1.5 \text{ hrs.} = \247.50 burden per party. The total cost burden then would be $\$247.50 \times 5,000 \text{ reports} = \$1,237,500$.

Second, the requirements to deliver confidence and uncertainty data on a per call basis to each PSAP after year two of the interim benchmarks encompasses the collection of information pertaining to the reliability of the location fix of an emergency wireless call and, therefore, constitutes a collection and reporting requirement. The Commission estimates that all of the 2,500 carriers will use an in-house staff engineer at approximately \$150 per hour to establish the baseline levels for delivering the confidence and uncertainty data. If each set-up takes about eight hours to establish a baseline for the data, the total burden hours would then be 8 hrs. $\times 2,500 \text{ carriers} = \mathbf{20,000 \text{ total burden hours}}$. The cost per submission will be $\$150 \times 8 \text{ hrs.} = \$1,200$ burden per party. The total cost burden then would be $\$1,200 \times 2,500 \text{ carriers} = \$3,000,000$.

Also, the Commission estimates that there are approximately 3,500 System Service Providers (SSPs), including LECs, CLECs, owners of E911 networks, and emergency service providers, responsible for transporting confidence and uncertainty data between the wireless carriers and PSAPs. The Commission estimates that all of the 3,500 SSP entities will use an in-house staff engineer at approximately \$150 per hour to establish the capability for transporting the confidence and uncertainty data. If each set-up takes about eight hours to prepare, install, and test, the total burden hours would then be 8 hrs. x 3,500 SSPs = **28,000 total burden hours**. The cost per submission will be \$150 x 8 hrs. = \$1,200 burden per party. The total cost burden then would be \$1200 x 3,500 SSP entities = \$4,200,000. The capability to transport the required data to numerous PSAPs within a carrier's service area(s) reports must be effectuated at the same time (after year two as mentioned above), meaning that the burden hours and costs will be all-inclusive for the delivery of the data to tens, hundreds, or even thousands of PSAPs depending on the size and coverage of the carrier. Consequently, the Commission assumes that the deployment of the capability comprises a single collection and reporting submission. Therefore, the total cost burden for all affected entities to transport confidence and uncertainty data is \$7,200,000.

Third, concerning waivers of the compliance with the amended location accuracy requirements and the interim benchmarks for carriers to achieve them, the Commission, for purposes of estimating the PRA burdens, predicts that in view of the lead-time and phase-in provided by the benchmarks and of the flexibility provided by the exclusions, three-fifths of the 2,500 carriers—1500 carriers—will request a waiver of the E911 location accuracy requirements and that all will use staff attorneys or engineers to prepare their submission. The request should take an average of approximately 3 hours to prepare. 1,500 carriers x 3 hours = **4,500 hours total burden**.

Regarding compliance with the transporting of confidence and uncertainty data after year two of the period, the Commission determined that the record in the proceeding showed that it is technologically feasible require both handset-based and network-based carriers to provide confidence and uncertainty data. Out of caution, however, the Commission estimates that one-fifth of the 2,500 carriers—500—will request a waiver of the requirements to transport such data to PSAPs. The Commission estimates that the potential 500 carriers filing will use staff attorneys or engineers to prepare their submission. The request should take an average of approximately 3 hours to prepare. 500 carriers x 3 hours = **1,500 hours total burden**. The Second Report and Order addressed, however, the possibility that SSPs might seek waiver of transporting confidence and uncertainty data. The Commission estimates that one-fifth of the 3,500 SSP entities—700 SSPs—will request a waiver of the E911 location accuracy requirements and that all will use staff attorneys or engineers to prepare their submission. The request should take an average of approximately 3 hours to prepare. 700 SSPs x 3 hours = **2,100 hours total burden**.

Summary of the total number of burden hours:

Annual carrier burden to file exclusion reports	=	15,000 hours
Carrier burden to transmit confidence and uncertainty data	=	20,000 hours
SSP burden to transmit confidence and	=	28,000 hours

uncertainty data

Carrier burden to draft and submit requests for waiver of amended location accuracy requirements and benchmarks	=	4,500 hours
Carrier burden to draft and submit requests for waiver of requirement for confidence and uncertainty data	=	1,500 hours
SSP burden to draft and submit requests for waiver of requirement for confidence and uncertainty data	=	2,100 hours

Total Annual Burden Hours **71,100 hours**

Summary of cost burden:

For the drafting and submission of all waiver requests, the Commission estimates that the carriers and SSPs likely to file waiver requests will use an in-house staff attorney or engineer at approximately \$150 per hour to draft their waiver requests. If each waiver petition takes about 3 hours to prepare, that the cost per submission will be $\$150 \times 3 = \450 burden per party.

Annual carrier cost burden to file exclusion reports: $\$247.50 \times 5,000$ reports = \$1,237,500

Carrier burden for confidence and uncertainty data:

$\$1200$ per party \times 2,500 carriers = \$3,000,000

SSP burden for confidence and uncertainty data:

$\$1200$ per party \times 3,500 SSPs = \$4,200,000

Carrier burden for waiver requests – location accuracy requirements and benchmarks: $3 \text{ hrs.} \times \$150 \times 1,500$ carriers = \$675,000

Carrier burden for waiver requests – requirement for confidence and uncertainty data: $3 \text{ hrs.} \times \$150 \times 500$ carriers = \$225,000

SSP burden for waiver requests – requirement for confidence and uncertainty data: $3 \text{ hrs.} \times \$150 \times 700$ carriers = \$315,000

Total Annual In-House Cost Burden **= \$9,652,500**

13. There are no start-up and capital cost or operation and maintenance cost burdens to respondents resulting from the collection of information.

14. The cost to the Commission to review the exclusion reports is estimated to be: GS-15 engineer or attorney (\$65.83 per hour) to review 2,500 updated reports for about 30 minutes each is a total of 1,250 hours at \$65.83 an hour = \$131,660.

The Commission does not anticipate that it will incur costs pertaining to the requirement to transmit confidence and uncertainty data.

Concerning potential waiver requests, the cost to the Commission is estimated to be: GS-15 engineer and attorney (\$65.83 per hour) to review approximately 2,200 total waiver requests, for about 2 hours per petition is $\$131.76 \times 2,200$ petitions = \$288,872.00.

15. This is a new collection resulting in a program change increase of 71,100 total annual burden hours.

16. The data will not be published for statistical use.

17. We do not seek approval not to display the expiration date for OMB approval of the information collection.

18. There were exceptions to the Certification Statement in Item 19. When the Commission published the 60 day notice in the Federal Register we incorrectly identified the annual costs as outside contracting costs. Those costs are considered in-house costs performed by carriers. The supporting statement correctly identifies those costs as in-house.

B. Collections of Information Employing Statistical Methods:

No statistical methods are employed.