

§ 45.173 Eligible barges.

* * * * *

(c) Barges with a length-to-depth ratio less than 22;

(d) Barges on the Milwaukee route must not be more than 10 years old; and

(e) All weathertight and watertight closures (dogs, gaskets, covers, etc.) must be in proper working condition.

■ 4. Revise § 45.175 to read as follows:

§ 45.175 Applicable routes.

This subpart applies to the following routes, including intermediate ports, on Lake Michigan, between Calumet Harbor, IL, and—

(a) Milwaukee, WI (the “Milwaukee route”);

(b) Burns Harbor, IN (the “Burns Harbor route”);

(c) St. Joseph, MI (the “St. Joseph route”); and

(d) Muskegon, MI (the “Muskegon route”).

■ 5. Amend § 45.181 to revise

paragraphs (a) and (b)(1) to read as follows:

§ 45.181 Load line exemption requirements for the Burns Harbor and Milwaukee routes.

* * * * *

(a) *Registration.* Before the barge’s first voyage onto Lake Michigan, the owner or operator must register the barge in writing with the Commanding Officer, Marine Safety Unit Chicago, 555A Plainfield Road, Willowbrook, IL, 60527. The registration may be faxed to MSU Chicago in advance at (630) 986-2120, with the original following by mail. The registration may be in any form, but must be signed by the owner or operator. No load line exemption certificate will be returned. However, the registration will be kept on file.

(b) * * *

(1) Barge name and official documentation number;

* * * * *

§ 45.183 [Amended]

■ 6. Amend § 45.183 to read as follows:

■ a. In paragraph (a)(2), remove the word “five” and add, in its place, the numeral “5”; and

■ b. In paragraph (b)(2)(vi), remove the words “and be fully” and add, in their place, the words “and fully”.

■ 7. Amend § 45.185 to revise paragraphs (b) and (c) to read as follows:

§ 45.185 Tow limitations.

* * * * *

(b) No more than a total of three barges per tow may operate on the Milwaukee, St. Joseph, and Muskegon routes. A mixed tow of load-lined and exempted barges is still limited to three barges on those routes.

(c) Tows must not be more than 5 nautical miles from shore.

■ 8. Revise § 45.187 to read as follows:

§ 45.187 Weather limitations.

(a) Tows may not operate under Small Craft Advisory (SCA) conditions or worse, as issued by the National Weather Service in Lake Michigan Nearshore Marine Forecasts.

(b) Tows may not operate when adverse ice conditions may imperil the tow or impede its access to shelter.

(c) If SCA conditions are forecasted to develop at any time during the voyage, the tow must not leave harbor or, if already underway, must proceed to the nearest appropriate harbor of safe refuge.

■ 9. Amend § 45.191 to revise paragraphs (a) and (b)(5) to read as follows:

§ 45.191 Pre-departure requirements.

* * * * *

(a) *Weather forecast.* Determine the Lake Michigan Nearshore Marine Forecast along the planned route, and confirm that adverse weather conditions (Small Craft Advisory or worse, or ice conditions) are not forecasted to develop.

(b) * * *

(5) All hatch and manhole dogs are in working condition, and all covers are closed and secured watertight;

* * * * *

§ 45.193 [Amended]

■ 10. In § 45.193(a), add the text “(HP)” after the word “horsepower”.

§ 45.197 [Amended]

■ 11. In § 45.197, in the introductory text, remove the word “aboard” and add, in its place, the words “on board”.

Dated: November 12, 2010.

J.G. Lantz,

Director of Commercial Regulations and Standards.

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 20

[PS Docket No. 07-114; FCC 10-176]

Wireless E911 Location Accuracy Requirements

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission

(Commission) amends its rules to require wireless licensees subject to standards for wireless Enhanced 911 (E911) Phase II location accuracy and reliability to satisfy these standards at either a county-based or Public Safety Answering Point (PSAP)-based geographic level. The Commission takes this step in order to ensure an appropriate and consistent compliance methodology with respect to location accuracy standards.

DATES: The rule is effective January 18, 2011, except for §§ 20.18(h)(1)(vi), 20.18(h)(2)(iii), and 20.18(h)(3), which contains information collection requirements that have not been approved by OMB. The Federal Communications Commission will publish a document in the **Federal Register** announcing the effective date.

FOR FURTHER INFORMATION CONTACT: Patrick Donovan, Policy Division, Public Safety and Homeland Security Bureau, (202) 418-2413.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission’s *Second Report and Order* (Order) in PS Docket No. 07-114, FCC 10-176, adopted September 23, 2010, and released September 23, 2010. The complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Room CY-A257, 445 12th Street, SW., Washington, DC 20554. This document may also be obtained from the Commission’s duplicating contractor, Best Copy and Printing, Inc., in person at 445 12th Street, SW., Room CY-B402, Washington, DC 20554, via telephone at (202) 488-5300, via facsimile at (202) 488-5563, or via e-mail at FCC@BCPIWEB.COM. Alternative formats (computer diskette, large print, audio cassette, and Braille) are available to persons with disabilities by sending an e-mail to FCC504@fcc.gov or calling the Consumer and Governmental Affairs Bureau at (202) 418-0530, TTY (202) 418-0432. This document is also available on the Commission’s Web site at <http://www.fcc.gov>.

I. Introduction

1. One of the most important opportunities afforded by mobile telephony is the potential for the American public to have access to emergency services personnel during times of crisis, wherever they may be. To ensure this benefit is realized, however, public safety personnel must have accurate information regarding the location of the caller. Without precise location information, public safety’s ability to provide critical services in a

timely fashion becomes far more difficult, if not impossible. Accordingly, this order requires wireless carriers to take steps to provide more specific automatic location information in connection with 911 emergency calls to Public Safety Answering Points (PSAPs) in areas where they have not done so in the past. As a result of this order, emergency responders will be able to reach the site of an emergency more quickly and efficiently. In addition, in a companion Further Notice of Proposed Rulemaking and Notice of Inquiry that we adopt today, we build on the order and explore how to further enhance location accuracy for existing and new wireless voice communications technologies, including new broadband technologies associated with deployment of Next Generation 911 (NG911) networks.

2. To accomplish these goals, in this Second Report and Order, we revise section 20.18(h) of the Commission's rules, which specifies standards for wireless Enhanced 911 (E911) Phase II location accuracy and reliability. Specifically, we now require wireless licensees subject to section 20.18(h) to satisfy these standards at either a county-based or PSAP-based geographic level. We also revise the requirements of section 20.18(h) for handset-based and network-based location technologies.

II. Background

3. On June 1, 2007, the Commission released a Notice of Proposed Rulemaking (NPRM) seeking comment on the appropriate geographic area over which to measure compliance with section 20.18(h), as well as a variety of additional questions about how to improve 911 location accuracy and reliability. In the NPRM, the Commission indicated that carriers should not be permitted to average their accuracy results over vast service areas, because carriers thereby could assert that they satisfy the requirements of section 20.18(h) without meeting the accuracy requirements in substantial segments of their service areas. The Commission stated that although measuring location accuracy at the PSAP level may present challenges, the public interest demands that carriers and technology providers strive to ensure that when wireless callers dial 911, emergency responders are provided location information that enables them to reach the site of the emergency as quickly as possible. Because many carriers were not measuring and testing location accuracy at the PSAP service area level, the Commission sought comment on whether to defer enforcement of section 20.18(h) if the

Commission adopted its tentative conclusion to require compliance at the PSAP level.

4. On November 20, 2007, the Commission released a Report and Order (First Report and Order) requiring wireless licensees to satisfy the E911 accuracy and reliability standards at a geographic level defined by the service area of a PSAP. The decision to adopt a PSAP-level compliance requirement was responsive to a request for declaratory ruling filed by the Association of Public-Safety Communications Officials-International, Inc. (APCO) asking that the Commission require carriers to meet the Commission's location accuracy requirements at the PSAP service area level. Specifically, the First Report and Order established interim annual requirements leading to an ultimate deadline of September 11, 2012 for achieving compliance with section 20.18(h) at the PSAP level, for both handset-based and network-based technologies. Several carriers filed with the Commission Motions for Stay of the First Report and Order, seeking a stay of the effectiveness of the rules adopted in the First Report and Order pending judicial review. Following petitions for review filed with respect to the First Report and Order, on March 25, 2008, the United States Court of Appeals for the District of Columbia Circuit (Court) stayed the First Report and Order.

5. On July 14, 2008, APCO and the National Emergency Number Association (NENA) filed an ex parte letter stating that they "are now willing to accept compliance measurements at the county level" rather than at the PSAP level. APCO and NENA added that "[p]ublic safety and wireless carriers are in current discussions on a number of other issues associated with E9-1-1, with the goal of improving information available to PSAPs. There are areas of agreement in concept; however, the details are still being developed."

6. On July 31, 2008, the Commission filed with the Court a Motion for Voluntary Remand and Vacatur, which requested remand based on the proposals contained in the July 14 ex parte letter and "[i]n light of the public safety community's support for revised rules." Following this filing with the Court, NENA, APCO, Verizon Wireless, Sprint Nextel Corporation (Sprint Nextel), and AT&T Inc. (AT&T) submitted written ex parte letters with the Commission with proposed new wireless E911 rules. On September 17, 2008, the Court granted the Commission's Motion for Voluntary Remand.

7. On September 22, 2008, the Public Safety and Homeland Security Bureau (Bureau) released a public notice seeking comment on the proposals submitted in the ex parte letters. The Bureau sought comment on the proposed changed accuracy requirements, including the benchmarks, limitations, and exclusions, for handset-based and network-based location technologies. The Bureau also sought comment on pledges to convene industry groups to explore related issues, and whether the Commission should require the provision of confidence and uncertainty data, as well as any alternative modifications to location accuracy requirements. The Bureau urged all interested parties to review the entirety of the ex parte letters.

8. On November 4, 2008, the Commission adopted two Orders approving applications for transfers of control, involving Verizon Wireless and ALLTEL Corporation, and Sprint Nextel and Clearwire Corporation, conditioned upon their voluntary agreements to abide by the conditions set forth in their respective ex parte letters, which are identical to the wireless E911 proposals they submitted in this proceeding. In each case, the Commission found that these conditions would "further ensure that consummation of the proposed merger serves the public interest, convenience and necessity."

9. On November 20, 2009, in light of the passage of time, the Bureau released a public notice seeking to refresh the record. Specifically, the Bureau sought comment on whether subsequent developments in the industry and technology may have affected parties' positions on the issues raised. A list of parties submitting comments in response to the Second Bureau Public Notice is attached as Appendix A.

10. On June 16, 2010, T-Mobile USA, Inc. (T-Mobile) filed an ex parte letter stating that it would agree to comply with the benchmarks for network-based location technologies that were proposed in the APCO/NENA/AT&T Aug. 25 Ex Parte, with several modifications. On June 30, 2010, the Rural Cellular Association (RCA) filed an ex parte letter stating that it supports the proposed modifications in the T-Mobile Ex Parte. On July 7, 2010, APCO and NENA filed an ex parte letter stating that they do not object to the proposed modifications in the T-Mobile Ex Parte and urged the Commission to proceed expeditiously to implement the modified proposals. On July 29, 2010, General Communication, Inc. (GCI) filed an ex parte letter including proposals

with specific application to rural and regional providers.

11. This Second Report and Order represents our next step in a comprehensive examination of E911 location accuracy and reliability. Taken together, the APCO, NENA, AT&T, Sprint, T-Mobile, and Verizon Wireless proposals reflect agreement among leading 911 stakeholders for new E911 accuracy requirements for both handset-based and network-based location technologies. In the context of our review of the entire record in this proceeding, we find that these consensus proposals from national public safety organizations and major industry representatives will provide public safety agencies with necessary information during emergencies, and benefit consumers, in a manner that is technologically achievable. Moreover, the timeframe for compliance and permitted exclusions will serve to minimize the economic impact on small carriers while retaining significant benefits for public safety.

III. Discussion

A. Compliance With Section 20.18(h) at the County Level or PSAP Level

12. The rule changes we are adopting today further our long-standing public safety and homeland security goals in this proceeding. First, they ensure that all stakeholders—including public safety entities, wireless carriers, technology providers, and the public—will benefit from an appropriate and consistent compliance methodology. Second, by making clear that location accuracy compliance may not be achieved on an averaged basis over large geographical areas, the revised rules ensure that PSAPs receive meaningful, accurate location information from wireless 911 callers in order to dispatch local emergency responders to the correct location. As a direct result, the new rules will minimize potentially life-threatening delays that may ensue when first responders cannot be confident that they are receiving accurate location information. As discussed below, major wireless carriers either already are subject to most elements of the ex parte proposals as a result of merger conditions, or indicate they can comply with the changed location accuracy requirements based on existing location technologies. These carriers also indicate that it is feasible for them to comply with our new requirement that they provide confidence and uncertainty data to PSAPs, which is widely supported by the public safety community. Also, as explained below, we provide for certain exclusions

reflective of the technical limitations of existing location technologies. Furthermore, carriers facing unique circumstances may seek waiver relief based on certain factors.

13. As an initial matter, some commenters have urged the Commission to forego any rulemaking, advocating instead that the Commission establish an industry advisory group to draft new rules relating to location accuracy. Further, some technology companies presented alternate views. For example, Polaris Wireless, Inc. (Polaris) states that the ex parte proposals maintain the status quo for handset-based carriers and “spark a migration to predominately handset-based technologies even for network-based carriers.” Therefore, Polaris argues that “this proposed framework will not drive the adoption of the best E911 Phase II technologies available today, such as hybrid systems, nor will it achieve the greatest or fastest possible outcome for the American public.” S5 Wireless, Inc. (S5) “believes it is currently possible to implement newer technologies, such as that which S5 offers, and easily achieve the Commission’s accuracy standards.”

14. We decline to delay taking Commission action, because of the importance to public safety of minimizing the potentially life-threatening delays that may ensue when first responders cannot be confident that they are receiving accurate location information. Further, while other technologies may hold promise for enhanced location accuracy, we find that acting now to adopt clear new geographic requirements based on the existing location accuracy calculations is the best course for the near-term. In our companion proceeding adopted today, we explore how differing technology approaches may improve wireless location accuracy going forward.

15. Comments. A number of commenters generally support requiring compliance with section 20.18(h) at the county or PSAP-level. However, a few commenters held opposing views. Corr Wireless Communications, LLC (Corr) advocates using the Metropolitan Statistical Area as a “more useful measuring stick for this kind of service.” Corr, however, indicates that it would support a county-based metric provided that the Commission “make an exception in its accuracy requirement to account for the impossibility or extreme difficulty in meeting that standard in rural areas.” Furthermore, a number of commenters argue that complying with the county-level standard would be prohibitively expensive. For example, the National Telecommunications

Cooperative Association (NTCA) argues that “it is expected that the new standards will impose prohibitive costs on many rural wireless carriers, if compliance is even possible.” The Rural Telecommunications Group (RTG), citing to its August 20, 2007 comments, notes that rural carriers “may need to construct an extraordinary number of additional antenna sites,” and that, “[w]ith fewer customers than large carriers serving urban areas, RTG members and other rural wireless carriers are unable to recover the substantial cost of constructing a large number of additional cell sites solely to triangulate location data.” GCI argues that the county-based metric does “not take into account the technological and economic realities of providing service to low-density, topographically challenged service areas, like Alaska,” adding that “strict adherence to th[e] proposed metrics [w]ould have the perverse result of stifling deployments to areas most in need of wireless infrastructure investment.” NENA and APCO favor “a waiver process to the wholesale ‘exceptions’ for rural carriers proposed by Corr Wireless which would essentially only require Phase I in many parts of the country.”

16. Discussion. Based on the complete record in this proceeding, we revise the wireless location accuracy rules to require county-level or PSAP-level compliance. We agree with APCO and NENA and find that requiring compliance at the county level reflects recent consolidation efforts by PSAPs to mirror county boundaries. In addition, we agree that counties “are more easily defined than PSAPs and are not prone to administrative boundary changes.” We find that compliance at the county level can be achieved with currently available technology, particularly in conjunction with the revisions we make to section 20.18(h) discussed below, including the permitted exclusions. Accordingly, we find that a county-level compliance standard provides an appropriate, consistent, and achievable compliance methodology with respect to wireless location accuracy standards. We conclude that a county-level compliance standard will ensure that PSAPs receive accurate and meaningful location information in most cases. Moreover, nothing in the record persuades us that such costs will be prohibitive for participating wireless carriers, including smaller carriers. The commenters expressing these concerns provide no quantification of the cost of meeting these requirements. As discussed below, however, we afford certain exclusions and note that

financial considerations, among others, will be taken into account should a service provider request waiver relief.

17. We also find that there continues to be merit in a PSAP service area-based compliance standard. As APCO and NENA indicate, "county-level accuracy would in many cases be identical to PSAP-level accuracy." In many areas, PSAP service areas are coterminous with county boundaries. Where PSAP service areas are larger than counties, however, providing location accuracy at the PSAP level would be beneficial to the public safety community since the reported accuracy would match the exact boundary of the PSAP's service area. Conversely, where PSAPs are smaller than counties, providing location accuracy information at the PSAP level could be of even more value to the PSAP and the public safety community since the information would be provided on a more granular basis than that achieved at the larger county level. Various public safety organizations continue to express support for PSAP-level compliance in comments filed with the Commission.

18. We therefore find that both PSAP-level compliance and county-level compliance are beneficial towards meeting the needs of PSAPs and public safety first responders, and we will allow carriers to choose which standard better meets their needs. Such an approach will permit carriers to analyze carrier-specific factors like natural and network topographies (for example, foliage levels, terrain characteristics, cell site density, overall system technology requirements, etc.) while, in either case, ensuring that public safety responders receive timely and accurate location information.

B. Handset-Based Location Technologies

19. On August 20, 2008, NENA, APCO, and Verizon Wireless filed a joint proposal for "compliance measurements for handset-based technologies." Specifically, they propose the following new rules:

Two years after the Commission adopts new rules, on a county-by-county basis, 67% of Phase II calls must be accurate to within 50 meters in all counties; 80% of Phase II calls must be accurate to within 150 meters in all counties, provided, however, that a carrier may exclude up to 15% of counties from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties.

Eight years after the Commission adopts new rules, on a county-by-county basis, 67% of Phase II calls must

be accurate to within 50 meters in all counties; 90% of Phase II calls must be accurate to within 150 meters in all counties, provided, however, that a carrier may exclude up to 15% of counties from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties.

20. Verizon Wireless explains that, "the greatest technical barrier to the accuracy of handset-based E911 technologies is the presence of terrain obstructions, whether natural or manmade * * * Where, for example, an area's topology is characterized by forest, the likelihood of a good location fix is reduced because the tree cover obstructs the transmission path between the satellites and the handset. The more extensive the tree cover, the greater the difficulty the system has in generating a GPS-based fix." To that end, Verizon Wireless states that its joint proposal with NENA and APCO compensates for these "technical realities."

21. The parties also pledged "to convene, within 180 days of the Commission's order, an industry group to evaluate methodologies for assessing wireless 9-1-1 location accuracy for calls originating indoors and report back to the Commission within one year." On August 21, 2008, Sprint submitted a letter in support of the NENA, APCO, and Verizon Wireless proposal, stating: The proposed accuracy standard meets the concerns of public safety while acknowledging the limitations of current technology. Although setting the accuracy standard at the county level will impose significant testing costs and require substantial time to complete, the accuracy standards articulated should be achievable. Sprint commends all those involved in the work required to produce this proposal and urges the Commission to adopt this compromise.

22. As mentioned above, the Commission previously adopted two Orders approving applications for transfers of control, involving Verizon and ALLTEL Corporation and Sprint Nextel and Clearwire Corporation, conditioned upon their voluntary agreements to abide by the conditions set forth in their respective ex parte letters, which are identical to the wireless E911 proposals they submitted in this proceeding.

23. Comments. Sprint Nextel, a handset-based carrier, continues to support the NENA, APCO, and Verizon Wireless proposal. Sprint Nextel views these benchmarks as "furthering the goals of public safety; both by holding carriers to a higher standard and by ensuring that carriers are optimizing their networks at the local level." Sprint

Nextel adds that, "one of the significant benefits of the compromise will be the extensive testing required at the local level." Sprint Nextel notes that "[t]o date the Commission has adopted new accuracy requirements for two wireless carriers, Sprint and Verizon Wireless" and the Commission should therefore "work toward developing regulations to apply to the industry as a whole." NTELOS, however, expresses "concerns that any new testing and reporting requirements would be burdensome since we are a small, regional carrier and do not have the expertise within the company to accomplish this task." NTELOS notes that it "depends heavily on outside vendors for support in our accuracy testing," and "the unknown cost of reporting requirements that would accompany any rule change could have significant repercussions for smaller carriers." RCA states that "as currently proposed, the [handset based] location accuracy standards provided by Verizon Wireless and public safety groups are not technically and economically feasible for the Tier II and Tier III carriers that RCA represents. Tier II carriers will need at least an additional six months after the effective date of any new rules to meet the 67%/80% requirement proposed by Verizon Wireless. Tier III carriers will need at least an additional 12 months." SouthernLINC Wireless (SouthernLINC) maintains that the proposals "fail to give any consideration to the circumstances and operational realities faced by the nation's smaller regional and rural wireless carriers." SouthernLINC therefore argues for the "adoption of alternative benchmarks for small and mid-size Tier II and Tier III carriers," and proposes its own benchmarks in order to "provide Tier II and Tier III carriers sufficient time to implement the measures necessary to conduct county-level testing." Finally, SouthernLINC notes that "for regional and rural carriers, the impact of any new location accuracy requirements is an issue of both the cost of acquiring and deploying additional technology * * * and the cost of conducting statistically valid testing on a county-by-county basis to determine accuracy at the county level."

24. Specifically with respect to the parties' proposal to exclude fifteen percent of counties based upon heavy forestation, Sprint Nextel argues that the exclusion "acknowledges the technical limitations of current technology and does not penalize carriers for those exceptionally challenging cases." However, Motorola suggests rather than excluding 15 percent of counties based on forestation, the Commission should

adopt AT&T's requirement for network-based location technologies and allow 85 percent compliance at the final benchmark. Motorola argues that "doing so would provide carriers the flexibility for exclusions based not only on forestation, but also other situations such as urban canyons and urban/rural buildouts that limit handset-based technology accuracy." RCA argues that "the percentage of counties that can be excluded from the 150 meter requirement based upon 'heavy forestation' should be raised to twenty-five percent for purposes of meeting the 67%/80% requirement and twenty percent for the proposed 67%/90% requirement," and the Commission "should...make clear that the ['heavy forestation'] exception includes all terrain obstructions." United States Cellular Corp. (USCC) states that, "[t]o date, neither APCO, NENA nor Verizon Wireless have explained the rationale for setting the exclusion limit at 15 percent nor have they explained why this exclusion only applies in counties with heavy forestation." SouthernLINC recommends that the term "heavy forestation" be "changed to 'challenging environment' in order to clarify the nature of the of the 15-percent exclusion and avoid any confusion as to the exclusion's applicability." Verizon Wireless "supports an industry-wide rule that permits any carrier employing a handset-based solution (including Verizon Wireless) to exclude up to 15 percent of counties for any reason, not solely because of 'heavy forestation.'" APCO and NENA disagree with including other terrain obstructions into the fifteen percent exception, arguing that this "would be unacceptable as it could lead to the exclusion of large metropolitan counties." Rather, they state that they wish to restrict the exception only to forestation "on the expectation that it would apply in most cases to very sparsely populated counties." APCO and NENA also noted that "a broader exclusion could lead to substantial areas receiving substandard location accuracy for E911 calls."

25. Discussion. We find that the consensus plan, based on the agreement of important E911 stakeholders, comprehensively addresses location accuracy criteria in connection with handset-based location technology. These proposals ensure that carriers using handset-based location technologies are subject to appropriate and consistent compliance methodology that may not be based on averaging over large geographical areas. Additionally, we believe that the important public safety issues at stake outweigh the

potential cost impact of imposing these regulations. As we previously noted, SouthernLINC argues that the regulations would impose a significant strain on smaller carriers; however, SouthernLINC does not provide a quantification of the cost of meeting these requirements. Moreover, as discussed below, financial considerations, among others, will be taken into account should a service provider request waiver relief. Further, we conclude that the proposed compliance timeframes, limitations, and exemptions will provide carriers with a sufficient measure of flexibility to account for technical and cost-related concerns. Indeed, the approximately two year's passage of time since carriers first had an opportunity to raise concerns about the timing of the benchmarks negates the request of some carriers to extend the benchmarks for up to an additional year. Further, the rule changes we adopt today effectively relax the existing handset-based requirements by immediately reducing, for two years after the effective date, the 150 meter requirement from 95 percent of all calls to 80 percent of all calls. Moreover, even after eight years, the 150 meter requirement rises only to 90 percent.

26. The proposals also represent an acknowledgement by the public safety and commercial communities that they can address the critical need to provide public safety agencies with meaningful information in the event of an emergency in a technically achievable manner. The voluntary commitments to abide by the same proposals by Verizon, with respect to its transaction with ALLTEL (a Tier II wireless carrier), and Sprint, with respect to Clearwire, is further evidence of the flexibility and feasibility afforded by these criteria to enable carriers to meet these criteria even in the context of significant transactions. Thus, we require wireless licensees subject to section 20.18(h) of the Commission's rules who use handset-based location technology to satisfy these standards either at a county-based geographic level or at the PSAP service area level.

27. Because of the geographical and topographical differences that characterize different counties and PSAP service areas, we find that we should permit carriers using handset-based location technology to exclude up to 15 percent of counties or PSAP service areas from the 150 meter requirement based upon heavy forestation, consistent with the ex parte proposals. In this regard, we agree with NENA and APCO that any expansion of this exclusion, whether to an increased percentage or based on factors in

addition to forestation, would excuse compliance to an unacceptable level of risk to public safety. We find that among the challenges faced by handset-based technologies, forestation is a substantial contributor and that other terrain issues typically would overlap with forestation concerns. Therefore, we expect that many of these other terrain issues will be addressed through the forestation exclusion. The more open-ended approach advocated by commenters may lead to overuse or abuse of exceptions and potentially harm public safety. The waiver process is thus much more suitable to address individual or unique problems, where we can analyze the particular circumstances and the potential impact to public safety. Some commenters recommended specific criteria for Tier III carrier waivers. We address waiver requests in more detail below.

28. In order to ensure that the public safety community and the general public are aware of these instances where carriers cannot meet the Phase II location accuracy requirements, and prevent overuse of this exclusion, we will require carriers to file a list of those specific counties or PSAP service areas where they are utilizing this exclusion, within ninety days following approval from the Office of Management and Budget (OMB) for the related information collection. This list must be submitted electronically into the docket of this proceeding, and copies sent to NENA, APCO, and the National Association of State 9-1-1 Administrators (NASNA) in paper or electronic form. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes. We find that permitting this exclusion, subject to these reporting requirements, 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. We expect that carriers failing to meet any particular benchmark will promptly inform the Commission and submit an appropriately supported waiver request. Further, we will monitor progress at each benchmark and may request status information if necessary.

29. We also encourage the parties to meet as a group to evaluate methodologies for assessing wireless 911 location accuracy for indoor calls. Because indoor use poses unique obstacles to handset-based location technologies, and in light of the expressed interest of both the public

safety and commercial wireless communities to further explore this issue, we clarify that these standards apply to outdoor measurements only. Further, we are seeking comment in our companion FNPRM/NOI on how best to provide automatic location identification (ALI) in technically challenging environments, including indoors.

C. Network-Based Location Technologies

30. On August 25, 2008, NENA, APCO, and AT&T submitted an *ex parte* letter proposing new compliance measurements specifically addressing network-based technologies. NENA, APCO, and AT&T initially explain their proposal as follows:

As network-based providers will be unable to meet the new proposed county-level accuracy standards in all areas relying solely upon current network-based technology solutions, carriers who employ network-based location solutions may be expected to deploy handset-based solutions as an overlay to existing network-based solutions in order to meet the more stringent county-level requirements set forth below. To encourage the improvements in location accuracy that may be achieved using both network and handset based solutions, this proposal provides that network-based carriers may elect to use a system of blended reporting for accuracy measurements, as defined below. Carriers also may elect to report accuracy in any county based solely on the handset-based accuracy standards.

31. The parties next propose the following as the accuracy standards for network-based carriers:

67%/100M: 67 percent of all calls, measured at the county level, shall be located within 100 meters in each county by the end of year 5, in accordance with the interim benchmarks below; and

90%/300M: 90 percent of all calls, measured at the county level, shall be located within 300 meters in 85 percent of all counties by the end of year 8, in accordance with the interim benchmarks below.

32. In complying with the above, the parties provide the following limitation:

The county-level location accuracy standards will be applicable to those counties, on an individual basis, for which a network-based carrier has deployed Phase II in at least one cell site located within a county's boundary. Compliance with the 67 percent standard and compliance with the 90 percent standard in a given county shall be measured and reported

independently (i.e. the list of compliant counties for the 67 percent standard may be different than for the 90 percent standard).

33. Further, consistent with the opening explanation of their proposal, the parties propose employing a "blended" approach for meeting the above accuracy standards. Under this approach, carriers may take into account the impact of introducing "aGPS" (assisted GPS) handsets into their customer bases. Specifically, the parties state:

Accuracy data from both a network-based solution and a handset-based solution may be blended to meet the network-based standard. Such blending shall be based on weighting accuracy data in the ratio of aGPS handsets to non-aGPS handsets in the carrier's subscriber base. The weighting ratio shall be applied to the accuracy data from each solution and measured against the network-based standards.

34. In their filing, the parties offer an example of blended reporting assuming 60% penetration of aGPS devices in the network. In effect, the result of this example is a "blended average" for each county that achieves better accuracy than a network-based approach alone would achieve. AT&T states that environmental factors can "render the achievement of the current network-based location standards infeasible at the county level." However, AT&T suggests that "these challenges can be mitigated or overcome through the deployment of aGPS technology." AT&T concludes, "[a]ccordingly, using both network-based and handset-based E911 technologies in concert will allow all carriers over time to significantly improve E911 accuracy performance across the majority of service areas."

35. The NENA, APCO, and AT&T proposal also sets the following network-based solution compliance benchmarks:

36. First, for the 67%/100 meter standard:

End of Year 1: Carriers shall comply in 60% of counties, which counties shall cover at least 70% of the POPs covered by the carrier, network-wide. Compliance will be measured on a per county basis using existing network-based accuracy data.

End of Year 3: Carriers shall comply in 70% of counties, which counties shall cover at least 80% of the POPs covered by the carrier, network-wide. Compliance will be measured on a per county basis, using, at the carrier's election, either (i) network-based accuracy data; or (ii) blended reporting.

End of Year 5: Carriers shall comply in 100% of counties. Compliance will

be measured on a per county basis, using, at the carrier's election, either: (i) network-based accuracy data; (ii) blended reporting; or (iii) subject to the following caveat, solely handset-based accuracy data (at handset-based accuracy standards).

A carrier may rely solely on handset-based accuracy data in any county if at least 95% of its subscribers, network-wide, use an aGPS handset, or if it offers subscribers in that county who do not have an aGPS device an aGPS handset at no cost to the subscriber.

37. Second, for the 90%/300 meter standard:

End of Year 3: Carriers shall comply in 60% of counties, which counties shall cover at least 70% of the POPs covered by the carrier, network-wide. Compliance will be measured on a per county basis using, at the carrier's election, either: (i) Network-based accuracy data; or (ii) blended reporting.

End of Year 5: Carriers shall comply in 70% of counties, which counties shall cover at least 80% of the POPs covered by the carrier, network-wide. Compliance will be measured on a per county basis using, at the carrier's election, either (i) Network-based accuracy data; or (ii) blended reporting.

End of Year 8: Carriers shall comply in 85% of counties. Compliance will be measured on a per county basis using, at the carrier's election, either: (i) Network-based accuracy data; (ii) blended reporting; or (iii) subject to the caveat above, solely handset-based accuracy data (at handset-based accuracy standards).

38. Further, similar to the NENA, APCO, and Verizon Wireless proposal regarding stakeholder efforts to address location accuracy for wireless calls originating indoors, APCO, NENA, and AT&T propose the establishment of an E911 Technical Advisory Group (ETAG) that would "work with the E911 community to address open issues within this framework (e.g., updated outdoor and indoor accuracy measurement methodologies, tactics for improving accuracy performance in challenged areas, testing of emerging technology claims, E911 responsibilities in an open-access environment, the development of hybrid network—A—GPS technologies, etc.)." AT&T continues to support the creation of an ETAG and notes that "[t]he Commission has successfully leveraged such working groups in the past to drive policy forward, particularly in the public safety area, where the Commission's objectives are clear but the technical path forward requires further research and development before implementation is possible."

39. Comments. In response to the Bureau Public Notice, T-Mobile and RCA argued that “[b]ecause as a practical matter a carrier must implement A-GPS and reach certain handset penetration levels in order to meet some of the proposed benchmarks, and because implementation of A-GPS for GSM carriers is directly tied to implementation of 3G service, several of the proposed benchmarks will not be technically and economically feasible for carriers other than AT&T unless these other carriers have a more nearly comparable period from the introduction of their own 3G services to meet the benchmarks.” Specifically, T-Mobile and RCA advocated deferring the first benchmark by six months for Tier I and Tier II carriers and deferring the first benchmark by one year for Tier III carriers. In addition, they argued that “[f]or T-Mobile, * * * the second, third and fourth benchmarks need to be delayed by at least two years in order for T-Mobile to have a timeline from 3G deployment similar [to] AT&Ts. For RCA members, the second, third, and fourth benchmarks need to be delayed further as their deployment of 3G services and A-GPS handsets has not yet begun.” Nokia agreed with this approach, arguing that it would “allow for a more technically and commercially feasible approach for all affected carriers, including carriers who are in initial stages of deploying 3G across their networks.” RCA also noted that “Tier II and Tier III carriers do not necessarily have access to the same array or types of handsets * * * as Tier I carriers * * * due, in large part, to the growing use of exclusivity arrangements between the Nation’s largest wireless carriers and handset manufacturers.” NENA and APCO, however, noted that T-Mobile’s plan would “probably require more than seven years [to reach the third benchmark] as they would link the start-date to the deployment of A-GPS handsets.” Moreover, NENA and APCO noted that variations among carriers in their deployment of next generation technologies “might be among the factors that could be considered in a waiver process.” Further, AT&T argued that “[t]he flexibility built into the joint proposal * * * will enable carriers to meet the joint proposal’s ultimate requirements and interim benchmarks through a variety of means and incorporating the technologies that are best suited to their network and their particular deployment strategy * * * Particularly in light of that flexibility, AT&T is confident that the APCO/NENA/AT&T joint proposal is technically feasible for

carriers that currently rely on network-based solutions.”

40. In response to the Second Bureau Public Notice, T-Mobile, RCA, and RTG maintained that upon revisiting their previously submitted proposal, “with the benefit of additional experience * * * it still may not be flexible enough to recognize reality.” As such, T-Mobile, RCA, and RTG requested the Commission “simply to require that all 3G handsets manufactured in or imported into the United States be A-GPS-capable after a date certain.” T-Mobile, RCA, and RTG also requested the Commission to require “after an appropriate transition period, carriers [to] enable their entire network to be able to handle and to provide to PSAPs GPS-based location data from an A-GPS-capable handset, rather than locating these handsets using network-based technology.” According to T-Mobile, RCA, and RTG, “[t]his handset requirement approach is simpler than the complex combinations of benchmarks and exclusions in virtually all of last year’s proposals, can be easily monitored and enforced, and would ultimately produce the best technically feasible results for these “hard-to-estimate” areas.” The Blooston Rural Carriers supported the T-Mobile/RCA/RTG proposal and noted that “it would help move network-based carriers toward development of handset-based technology in a rapid but realistic timeframe.” NTCA believes that the T-Mobile/RCA/RTG proposal “accomplishes the Commission’s objectives and makes sense for small carriers.” NENA and APCO opposed the T-Mobile/RCA/RTG proposal, however, and “think the better answer is to establish a timeframe for compliance, reporting on efforts to meet elements of the timeframe and, where necessary, seek waivers based [on] current information and facts.”

41. Corr Wireless proposes that the Commission “adopt the county-based metric but make an exception in its accuracy requirement to account for the impossibility or extreme difficulty of meeting that standard in a rural area.” Specifically, Corr advocates that “in areas or counties where a network-solution carrier has fewer than four overlapping cell contours * * * only Phase I accuracy would be required.” Corr argues that “this exception is likely to be temporary in nature since Corr agrees with AT&T that the deployment in the near future of ‘A-GPS’ technology will enable even network-solution carriers to achieve high levels of location accuracy.” However, Corr also states that, “in order for small carriers like Corr to improve E911 accuracy

through the deployment of advanced A-GPS handsets, they must have access to those handsets.” Therefore, Corr argues that “the Commission should require handset manufacturers to make all handsets available on a non-discriminatory basis.” T-Mobile disagrees, arguing that “this will not meaningfully accelerate deployment of A-GPS handsets. Carriers will already be driven by the benchmarks to incorporate A-GPS into their handsets * * * Thus Corr’s proposed mandate is duplicative and unnecessary.” GCI Communications, in a later ex parte, proposes that “Tier III carriers in Alaska be required to measure compliance with the interim and final benchmarks only for those areas within a four-mile radius circle that includes at least five cell sites, where the test location within such circle has a usable signal level greater than –104 dBm to all cell sites within the circle.” GCI Communications also notes that any new benchmarks applicable to network-based carriers should “at the very least exclude any geographic area designated for measurement (like county or borough) where fewer than three cell sites are deployed and any community, or part of a community, where at least three cell sites are not viewable to a handset.” Finally, a number of commenters support the creation of an industry advisory group to further study and provide recommendations related to location accuracy.

42. In a later filed ex parte, T-Mobile stated that it would agree to comply with the NENA/APCO/AT&T Aug. 25 Ex Parte for network-based carriers, with the following modifications.

First, “[w]hen using network-based measurements as a component of the county-level compliance calculation (*i.e.*, if the carrier is using network-only measurements or blending network and A-GPS measurements),” the Commission should permit the carrier to “exclude that county if it has fewer than 3 cell sites.”

Second, the Commission should “[p]ermit a carrier to use “blending” as well as “network-only” measurements at the first benchmark.”

Third, the Commission should “[a]llow a carrier to comply with the Year-5 (third) benchmark using only handset-based measurements so long as it has achieved at least 85% (rather than 95%) AGPS handset penetration among its subscribers.”

In response, RCA “expressed its support” for the exclusion of counties with less than three cell sites, and APCO and NENA submitted a joint letter supporting T-Mobile’s

modifications, and urging prompt resolution of this proceeding.

43. Discussion. As with the county level location accuracy proposal received from handset-based carriers, we find that the NENA, APCO, and AT&T proposals, as modified by the T-Mobile Ex Parte, represent a consensus from important E911 stakeholders, which comprehensively addresses location accuracy criteria in connection with network-based technologies. We find that these proposals ensure that carriers using network-based location technologies are subject to appropriate and consistent compliance methodology that no longer may be based on nationwide averaging. Also like the handset-based consensus, the proposals represent an acknowledgment by members of both the public safety and commercial communities that they can address the critical need to provide public safety agencies with meaningful information in the event of an emergency in a technically achievable manner. We reject earlier proposals by T-Mobile and RCA that would extend the compliance benchmarks. We agree with NENA and APCO, and find that extending the compliance benchmarks would disserve the important public safety goals of this proceeding. Consistent with the views of AT&T, we find that the proposed compliance timeframes, limitations, and exemptions will allow carriers a sufficient measure of flexibility to account for technical and cost-related concerns.

44. We also find that the T-Mobile Ex Parte includes modifications that are reasonable under the circumstances. First, in regard to T-Mobile's request to exclude counties with fewer than three cell sites, we note that it is not technically possible for a carrier to triangulate a caller's location with only one or two cell sites. Moreover, we are concerned that the absence of an appropriate exception may have the unintended consequence of carriers choosing to eliminate service where they are unable to triangulate position. In such circumstances, clearly the availability of wireless service to enable a caller to reach 911 in the first instance outweighs the potential lack of ALI capability, at least until blending of A-GPS-enabled handsets permits ALI. At the same time, we want to make sure that any exclusion we adopt is (1) not overly or unnecessarily employed, (2) specifically targeted to the inability, as a technical matter, to determine position through triangulation, and (3) time-limited, transparent, and regularly revisited. Simply focusing on a county-based exclusion may fail to account for

all situations. A county-based exclusion may be over-inclusive by failing to account for cell sites outside a county that can be used to triangulate. Some counties, boroughs, parishes, etc. may be so large that, even though containing three or more cell sites, may still present technical challenges in achieving ALI. This can occur when cell sites are configured to provide coverage to specific communities that are at great distances from each other, or where mountainous or other terrain features prohibit triangulation of cell sites that absent such features could permit triangulation. On the other hand, triangulation may be possible in only certain portions of a county, or due to the proximity of towers available in an adjacent county. All the while, the need for this exclusion specific to network-based location technologies should diminish over time as carriers blend A-GPS handsets into their customer base.

45. Accordingly, we will permit network-based carriers to exclude from compliance particular counties, or portions of counties, where triangulation is not technically possible, such as locations where at least three cell sites are not sufficiently visible to a handset. Similar to the 15 percent county exclusion we permit for handset-based carriers above, in order to ensure that the public safety community and the general public are aware of these instances where carriers cannot meet the Phase II location accuracy requirements, and prevent overuse of this exclusion, we will require carriers to file a list of those specific counties, or portions thereof, where they are utilizing this exclusion, within ninety days following approval from OMB for the related information collection. This list must be submitted electronically into the docket of this proceeding, and copies sent to NENA, APCO, and NASNA in paper or electronic form. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes.

46. At the same time, we find it appropriate to place a time limit on this exclusion, because the need for this exclusion will diminish over time as network-based carriers incorporate A-GPS handsets into their subscriber bases. Accordingly, we will sunset this exclusion eight years after the effective date of this Order. Eight years following the effective date is the period of time by which the revised network-based requirements become fully effective. Network-based carriers that continue to lack the technical ability to triangulate position in certain areas upon the sunset

date may seek extended relief from the Commission at that time. We find that permitting this exclusion, subject to the initial reporting requirement, the obligation to update the list of excluded areas, and the sunset period, properly but narrowly accounts for the known technical limitations of network-based location accuracy technologies, while ensuring that the public safety community and the public at large are sufficiently informed of these limitations.

47. T-Mobile also requests that the Commission "[p]ermit a carrier to use 'blending' as well as 'network-only' measurements at the first benchmark." We find that in terms of the blending element, there is no reason to differentiate among the compliance mechanisms for the three benchmarks. Thus, we will permit a carrier to blend accuracy data from both a network-based solution and a handset-based solution to meet the network-based standard at the first benchmark. Lastly, T-Mobile requests that the Commission "[a]llow a carrier the option to comply with the Year 5 (third) benchmark using only handset-based measurements so long as it has achieved at least 85% (rather than 95%) A-GPS handset penetration among its subscribers." We agree with T-Mobile that this approach "is more consistent with a phased transition to 95% A-GPS handset penetration over the entire 8-year period." We also note that without this modification, a carrier's percentage of low-end customers could significantly affect its ability to meet the benchmarks. As T-Mobile and RCA point out, "[l]ow-end customers are less likely to move rapidly to the new 3G services and A-GPS handsets." Accordingly, we will permit a network-based carrier to comply with the third benchmark using only handset-based measurements, as long as it has achieved at least 85% A-GPS handset penetration among its subscribers.

48. Taking into consideration our goals for this proceeding and the entire record, we amend the network-based location accuracy rules consistent with the NENA, APCO and AT&T proposals, as modified by the T-Mobile Ex Parte, and as modified as discussed above with respect to the permitted exclusions where triangulation is not technically achievable. Accordingly, we require wireless licensees subject to section 20.18(h) of the Commission's rules using network-based location technology to satisfy these standards either at a county-based or PSAP-based geographic level. We clarify that these standards apply to outdoor measurements only. As described above,

and modified by the T-Mobile Ex Parte, we will also allow accuracy data from both a network-based solution and a handset-based solution to be blended to meet the network-based standard. We agree with AT&T that allowing this type of blending can mitigate perceived challenges associated with providing accurate location identification in certain areas. As before concerning the handset-based requirements, we expect that carriers failing to meet any particular benchmark will promptly inform the Commission and submit an appropriately supported waiver request. Further, we will monitor progress at each benchmark and may request status information if necessary.

49. Finally, as we previously noted, AT&T commits to creating an ETAG that would further examine related E911 issues. We encourage this effort, as well as Verizon's offer to convene an industry group to explore location accuracy for indoor calls as discussed above. Our companion FNPRM/NOI also seeks comment on these issues.

D. Confidence and Uncertainty Data

50. In the NPRM, we tentatively concluded that carriers should automatically provide accuracy data to PSAPs. We asked how and in what format that data should be transferred to each applicable PSAP. We also asked how often it should be reported or provided and whether it should be provided as part of the call information/ALI. Finally, we asked what the appropriate level of granularity for such accuracy data should be.

51. NENA, APCO, and AT&T include in their ex parte submission a proposal with respect to the provision of confidence and uncertainty data to PSAPs. Specifically:

Confidence and uncertainty data shall be provided on a per call basis upon PSAP request. This requirement shall begin at the end of Year 2, to allow testing to establish baseline confidence and uncertainty levels at the county level. Once a carrier has established baseline confidence and uncertainty levels in a county, ongoing accuracy shall be monitored based on the trending of uncertainty data and additional testing shall not be required.

52. This proposal is widely welcomed by the public safety community, as well as by representatives of industry. In its original request for declaratory ruling, APCO stated, "[r]egardless of the geographic area over which accuracy is measured, it is critical for PSAPs to know just how accurate the information is that they do receive." APCO later explained:

PSAPs need to know the level of E9-1-1 accuracy to facilitate appropriate dispatching of emergency responders. For example, responders need to know what to do if they arrive at the "wrong address" or are unable to see the emergency upon arrival. If the call was delivered with a high degree of accuracy, the search for the actual emergency can be narrowed without requiring additional personnel. However, if the accuracy levels are actually low, then responders need to be prepared for a wider area search, and additional scarce resources may need to be dispatched. APCO and NENA also stress that providing confidence and uncertainty data on a per call basis "will greatly improve the ability of PSAPs to utilize accuracy data and manage their 9-1-1 calls." Industry representatives have similarly expressed the importance of confidence and uncertainty data. In this respect, we agree with AT&T that "the delivery of confidence and uncertainty data on a per-call basis will markedly improve 911 call takers' ability to assess the validity of each call's location information and deploy public safety resources accordingly." Sprint Nextel notes that "the uncertainty factor provides PSAPs with real time information about the quality of location calculation and removes the need to make their own assessment regarding the relative reliability of any particular fix."

53. Comments. AT&T argues that "wireless carriers are well positioned to develop and transmit C/U data, and our discussions with public safety organizations have made clear that, by enabling first responders to more accurately identify the relevant search data, the data can be very useful for PSAPs that are equipped to receive and utilize it." AT&T adds that "it is important that the C/U data delivered by carriers adhere to a single, common standard * * * AT&T and other carriers have reached consensus that uncertainty estimates will be provided by carriers at a confidence level corresponding to one standard deviation ('one sigma') from the mean" (or a confidence level of approximately 68 percent). Sprint Nextel supports the proposal to transmit confidence and uncertainty data upon PSAP request, but states that this is dependent on LECs forwarding this data to PSAPs and that "the Commission must require owners of E911 networks to take the steps necessary to accommodate such data." AT&T likewise notes that, "for the data to provide value * * * the local exchange carrier must deliver that [confidence and uncertainty] data to the PSAP, and

the PSAP must be equipped to receive and use it." Verizon states that "in some cases, the emergency services provider does not have the capability to transmit confidence and uncertainty information" and that the Commission should "require wireless carriers to include confidence and uncertainty information in the call location information they provide to the emergency services providers." NENA and APCO state that "[f]or those [System Service Providers] who do not pass uncertainty data to PSAPs, the burden should be on the SSP to demonstrate that they do not pass uncertainty data at the request of the PSAP or because of technical infeasibility, in which case a waiver may be warranted." However, Telecommunications Systems, Inc. states that the Commission should "reject the unspoken mandate to require extensive initial baseline ground truth testing and examine the benefits of using horizontal uncertainty as the initial and primary criteria for meeting location accuracy standards and the location information provided to PSAPs."

54. Discussion. Regardless of whether a carrier employs handset-based or network-based location technology, we require wireless carriers to provide confidence and uncertainty data on a per call basis upon PSAP request beginning at the end of year two. Although the NENA, APCO and AT&T proposal specifically applies to network-based location technologies, the record supports a finding that confidence and uncertainty data 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 in the manner proposed. Further, as Telecommunications Systems, Inc. notes in its comments, implementation of its proposed alternative process would require "further cooperative study." We thus decline to adopt its proposal, but do not preclude future consideration.

55. In addition, in light of the importance and usefulness of confidence and uncertainty data to public safety as demonstrated in the record, we take additional steps to ensure that the requirements we impose on wireless carriers are meaningful. Thus, to ensure that confidence and uncertainty data is made available to requesting PSAPs, we also require entities responsible for transporting this data between the wireless carriers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency

service providers (collectively, System Service Providers (SSPs)), to implement any modifications to enable the transmission of confidence and uncertainty data provided by wireless carriers to the requesting PSAPs. Additionally, we agree with APCO and NENA 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.

E. Waiver Requests

56. Some commenters recommended specific criteria for Tier III carrier waivers. We decline 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, we expect that the rule changes we adopt today should minimize the need for waiver relief. For handset-based carriers, we are permitting an exclusion of fifteen percent of counties due to heavy forestation and similar terrain features that impede the ability to obtain accurate location information. For network-based carriers, we are permitting exclusion of counties or portions of counties where cell site triangulation is not technically possible. 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 this Order. Finally, we make clear that the revised location accuracy requirements do not apply to indoor use cases.

IV. Procedural Matters

A. Final Regulatory Flexibility Analysis

57. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the Notice. The Commission sought written public comment on the possible significant economic impact on small entities regarding the proposals addressed in the Notice, including comments on the IRFA. Pursuant to the RFA, a Final Regulatory Flexibility Analysis is set forth in Appendix B of the Second Report and Order.

B. Paperwork Reduction Act of 1995 Analysis

58. This document contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general

public and the OMB to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

C. Congressional Review Act

59. The Commission will send a copy of this Second Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

D. Accessible Formats

60. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty). Contact the FCC to request reasonable accommodations for filing comments (accessible format documents, sign language interpreters, CARTS, etc.) by e-mail: FCC504@fcc.gov; phone: (202) 418-0530 (voice), (202) 418-0432 (TTY).

V. Ordering Clauses

61. Accordingly, *it is ordered*, pursuant to sections 1, 4(i), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 332, that the Second Report and Order in PS Docket No. 07 114 IS ADOPTED, and that part 20 of the Commission's rules, 47 CFR Part 20, is amended as set forth in Appendix C. The Second Report and Order shall become effective 60 days after publication in the **Federal Register**, subject to OMB approval for new information collection requirements.

62. *It is further ordered* that the Request for Declaratory Ruling filed by APCO is granted in part and denied in part to the extent indicated herein.

63. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this Second Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 20

Communications common carriers, Communications equipment, Radio, Federal Communications Commission.

Marlene H. Dortch,
Secretary.

Final Rules

■ For the reasons stated in the preamble, the Federal Communications Commission amends 47 CFR part 20 as follows:

PART 20—COMMERCIAL MOBILE RADIO SERVICES

■ 1. The authority citation for part 20 continues to read as follows:

Authority: 47 U.S.C. 154, 160, 201, 251-254, 303, and 332 unless otherwise noted.

■ 2. Section 20.18(h) is revised to read as follows:

§ 20.18 911 Service.

* * * * *

(h) *Phase II accuracy.* Licensees subject to this section shall comply with the following standards for Phase II location accuracy and reliability, to be tested and measured either at the county or at the PSAP service area geographic level, based on outdoor measurements only:

(1) *Network-based technologies:*
(i) 100 meters for 67 percent of calls, consistent with the following benchmarks:

(A) One year from January 18, 2011, carriers shall comply with this standard in 60 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 70 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either

(1) Network-based accuracy data, or
(2) Blended reporting as provided in paragraph (h)(1)(iv) of this section.

(B) Three years from January 18, 2011, carriers shall comply with this standard in 70 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 80 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either

(1) Network-based accuracy data, or
(2) Blended reporting as provided in paragraph (h)(1)(iv) of this section.

(C) Five years from January 18, 2011, carriers shall comply with this standard in 100% of counties or PSAP service areas covered by the carrier. Compliance will be measured on a per-county or

per-PSAP basis, using, at the carrier's election, either

- (1) Network-based accuracy data,
- (2) Blended reporting as provided in paragraph (h)(1)(iv) of this section, or
- (3) Handset-based accuracy data as provided in paragraph (h)(1)(v) of this section.

(ii) 300 meters for 90 percent of calls, consistent with the following benchmarks:

(A) Three years from January 18, 2011, carriers shall comply with this standard in 60 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 70 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either

- (1) Network-based accuracy data, or
- (2) Blended reporting as provided in paragraph (h)(1)(iv) of this section.

(B) Five years from January 18, 2011, carriers shall comply in 70 percent of counties or PSAP service areas. These counties or PSAP service areas must cover at least 80 percent of the population covered by the carrier across its entire network. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either

- (1) Network-based accuracy data, or
- (2) Blended reporting as provided in paragraph (h)(1)(iv) of this section.

(C) Eight years from January 18, 2011, carriers shall comply in 85 percent of counties or PSAP service areas. Compliance will be measured on a per-county or per-PSAP basis using, at the carrier's election, either

- (1) Network-based accuracy data,
- (2) Blended reporting as provided in paragraph (h)(1)(iv) of this section, or
- (3) Handset-based accuracy data as provided in paragraph (h)(1)(v) of this section.

(iii) County-level or PSAP-level location accuracy standards for network-based technologies will be applicable to those counties or PSAP service areas, on an individual basis, in which a network-based carrier has deployed Phase II in at least one cell site located within a county's or PSAP service area's boundary. Compliance with the requirements of paragraph (h)(1)(i) and paragraph (h)(1)(ii) of this section shall be measured and reported independently.

(iv) Accuracy data from both network-based solutions and handset-based solutions may be blended to measure compliance with the accuracy requirements of paragraph (h)(1)(i)(A) through (C) and paragraph (h)(1)(ii)(A) through (C) of this section. Such

blending shall be based on weighting accuracy data in the ratio of assisted GPS ("A-GPS") handsets to non-A-GPS handsets in the carrier's subscriber base. The weighting ratio shall be applied to the accuracy data from each solution and measured against the network-based accuracy requirements of paragraph (h)(1) of this section.

(v) A carrier may rely solely on handset-based accuracy data in any county or PSAP service area if at least 85 percent of its subscribers, network-wide, use A-GPS handsets, or if it offers A-GPS handsets to subscribers in that county or PSAP service area at no cost to the subscriber.

(vi) A carrier may exclude from compliance particular counties, or portions of counties, where triangulation is not technically possible, such as locations where at least three cell sites are not sufficiently visible to a handset. Carriers must file a list of the specific counties or portions of counties where they are utilizing this exclusion within 90 days following approval from the Office of Management and Budget for the related information collection. This list 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. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes. This exclusion will sunset on [8 years after effective date].

(2) *Handset-based technologies:*

(i) Two years from January 18, 2011, 50 meters for 67 percent of calls, and 150 meters for 80 percent of calls, on a per-county or per-PSAP basis. However, a carrier may exclude up to 15 percent of counties or PSAP service areas from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties or PSAP service areas.

(ii) Eight years from January 18, 2011, 50 meters for 67 percent of calls, and 150 meters for 90 percent of calls, on a per-county or per-PSAP basis. However, a carrier may exclude up to 15 percent of counties or PSAP service areas from the 150 meter requirement based upon heavy forestation that limits handset-based technology accuracy in those counties or PSAP service areas.

(iii) Carriers must file a list of the specific counties or PSAP service areas where they are utilizing the exclusion for heavy forestation within 90 days following approval from the Office of

Management and Budget for the related information collection. This list 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. Further, carriers must submit in the same manner any changes to their exclusion lists within thirty days of discovering such changes.

(3) *Confidence and uncertainty data:* Two years after January 18, 2011, all carriers subject to this section shall be required to provide confidence and uncertainty data on a per-call basis upon the request of a PSAP. Once a carrier has established baseline confidence and uncertainty levels in a county or PSAP service area, ongoing accuracy shall be monitored based on the trending of uncertainty data and additional testing shall not be required. All entities responsible for transporting confidence and uncertainty between wireless carriers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency service providers (collectively, System Service Providers (SSPs)) must implement any modifications that will enable the transmission of confidence and uncertainty data provided by wireless carriers to the requesting PSAP. If an SSP does not pass confidence and uncertainty data to PSAPs, the SSP has the burden of proving that it is technically infeasible for it to provide such data.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 0910131363-0087-02]

RIN 0648-XA048

Fisheries of the Exclusive Economic Zone Off Alaska; Pacific Cod by Catcher Vessels Greater Than or Equal to 60 Feet (18.3 Meters) Length Overall Using Pot Gear in the Bering Sea and Aleutian Islands Management Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; closure.