

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

In the Matter of)
Revision of the Commission's Rules To Ensure)
Compatibility with Enhanced 911 Emergency Calling) CC Docket No. 94-102
Systems)
Request for Waiver by Cingular Wireless LLC)

Order

Adopted: October 2, 2001

Released: October 12, 2001

By the Commission: Chairman Powell issuing a separate statement; Commissioners Abernathy and Martin issuing separate statements; Commissioner Copps concurring and issuing a statement.

I. INTRODUCTION

1. In this Order, we approve, in part, a plan proposed by Cingular Wireless LLC (Cingular) for its provision of Phase II location capability. Under this plan, Cingular will be permitted time to deploy Enhanced Observed Time Difference of Arrival (E-OTD) technology, its hybrid network- and handset-based solution for locating 911 callers, throughout its Global System for Mobile Communications (GSM) network. The accuracy of Cingular's E-OTD technology must meet the Commission's rules for network-based technologies immediately and for handset-based technologies by October 1, 2003 or Cingular must adopt an alternative location technology that meets the handset-based solution accuracy requirements. In addition, Cingular must deploy a "safety net" location technology solution, similar to Network Software Solution (NSS) location technology, for customers without E-OTD handsets. Cingular must also report to the Commission on its experience with E-OTD and its "safety net" location technology and on the status of Phase I and Phase II deployment. We find that this alternative compliance plan is justified by the overall benefits to public safety of Cingular's proposed solution and therefore, grant a temporary conditional waiver of the Commission's E911 rules to allow implementation of this plan.

2. With this Order, along with the companion wireless E911 orders adopted today, the Commission clears the way for the start of actual deployment of E911 Phase II. The deployment plans approved in these orders apply to carriers who serve more than 75 percent of all subscribers for wireless phone service in the United States. Under these plans the major national carriers will begin deploying technologies to locate wireless 911 callers within the next several months. They also should achieve complete deployment of Phase II, in full compliance with the Commission's accuracy standards, in all areas across the nation where 911 call centers are ready and able to use this information by the end dates in the existing Commission rules - i.e., no later than December 31, 2005. These carriers must implement Phase II in accordance with the terms of these approved schedules or they will be subject to enforcement action by the Commission. The Quarterly Reports to be filed by these carriers will allow the Commission to monitor the pace and overall progress of Phase I and Phase II deployment, and to facilitate the prompt

enforcement of the milestones and other requirements of the plans approved today.

3. Despite the substantial progress to date, especially given the groundbreaking nature of these technologies, much remains to be done to achieve the FCC's fundamental goal of having wireless E911 Phase II capabilities deployed throughout the country. All necessary participants – carriers, the public safety community, technology vendors, network equipment and handset vendors, local exchange carriers, and this Commission – must continue to work aggressively in the coming months and years to ensure the promise of these new life saving technologies becomes a reality.

II. BACKGROUND

A. Phase II Framework

4. Under Phase II of the Commission's wireless E911 rules, wireless carriers are required to provide the location of wireless 911 callers, a capability known as Automatic Location Identification (ALI).¹ In establishing those rules, the Commission sought to be technologically and competitively neutral, allowing any location technology to be used that can comply with specified accuracy, reliability, and deployment schedule requirements. For example, the rules provide that handset-based location solutions must provide the location of wireless 911 calls with an accuracy of 50 meters for 67 percent of calls and 150 meters for 95 percent of calls.² Carriers using a handset-based solution also must begin to offer one entry-level model with location capability no later than October 1, 2001 and must ensure that 95 percent of their customers have location capable handsets no later than December 31, 2005.³

5. For carriers choosing a network-based solution, the rules provide that the technology must report the location of wireless 911 calls with an accuracy of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls.⁴ A carrier using a network-based solution must provide ALI to 50 percent of its coverage area, or 50 percent of its population, beginning on October 1, 2001 or within 6 months of a Public Safety Answering Point (PSAP) request, whichever is later, and to 100 percent of callers within 18 months of that request or by October 1, 2002, whichever is later. Wireless carriers subject to the rules were directed to report their Phase II plans, including the technologies they plan to use, by November 9, 2000.⁵

6. During the course of the E911 proceeding, the Commission recognized that the E911 deployment schedule was aggressive in light of the need for further technological advancement. Nonetheless, the Commission predicted that ALI technologies would generally be available in sufficient time for carriers to comply.⁶

7. The Commission also recognized, however, that requests for waiver may be justified based on specific showings and discussed standards for such requests in the *E911 Fourth Memorandum Opinion*

¹ See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676 (1996). For additional information regarding the Commission's wireless E911 program, see www.fcc.gov/e911.

² 47 C.F.R. § 20.18(h)(2).

³ 47 C.F.R. § 20.18(g).

⁴ 47 C.F.R. § 20.18(h)(1).

⁵ 47 C.F.R. § 20.18(i). See www.fcc.gov/e911, *Wireless E-911 Phase II Automatic Location Identification Implementation, Reports From Wireless Carriers*.

⁶ *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, 17457-58 (2000) (*E911 Fourth Memorandum Opinion and Order*).

*and Order.*⁷ In the *E911 Fourth Memorandum Opinion and Order*, we explained that we would expect requests for waiver to be specific, focused, and limited in scope, with a clear path to full compliance.⁸ We also stated that carriers should undertake concrete steps necessary to come as close as possible to full compliance and should document their efforts, including the solutions they considered and why none could be employed in a way that complies with our Phase II rules. Finally, we stated that carriers should not expect to defer implementing a location solution if one is available and feasible.⁹

B. Summary of Cingular's Request for Relief

8. In its July 6, 2001 petition, Cingular seeks approval of a compliance plan that would permit it to deploy E-OTD technology in its GSM network.¹⁰ Cingular claims that, initially, its E-OTD solution will provide accuracy of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls but that the accuracy of the E-OTD technology will improve to meet the handset accuracy requirements by October 1, 2003.¹¹ Cingular indicates that it will deploy E-OTD capable handsets in advance of the Commission's benchmarks for handset deployment.¹²

9. In addition to deploying E-OTD, Cingular proposes to deploy a "safety net" location technology solution, similar to the Network Software Solution (NSS) location technology used by VoiceStream,¹³ for customers without E-OTD handsets. Cingular indicates that this solution will provide radial accuracy of 1000 meters for 67 percent of calls.¹⁴ Cingular commits to deploy this technology throughout its GSM network by the second quarter of 2002.¹⁵

10. Cingular contends that E-OTD is the only viable option for its GSM network because neither Assisted-Global Positioning System (A-GPS) handsets nor fully tested network-based solutions will be available in time to meet the Commission's Phase II implementation deadlines.¹⁶ In contrast, Cingular argues that its E-OTD solution can be implemented rapidly because deployment requires only handset software upgrades and some switch software and hardware upgrades. Cingular claims also that

⁷ *Id.*

⁸ *Id.* at 17457, para. 44.

⁹ *Id.* at 17457-58, paras. 44-45.

¹⁰ Cingular Wireless LLC's Petition for Limited Waiver of Sections 20.18(e)-(h), CC Docket No. 94-102 (filed July 6, 2001) (*Cingular Request*). In its July 6 petition, Cingular also requested permission to deploy a switch-based location technology in its Time Division Multiple Access (TDMA) network. On July 24, 2001, Cingular filed a notice withdrawing its request for waiver with respect to its TDMA network. Cingular Wireless LLC - Withdrawal of TDMA Portion of its Petition for Limited Waiver of Sections 20.18(e)-(h), CC Docket No. 94-102 (filed July 24, 2001). On August 30, Cingular resubmitted a compliance plan for its TDMA network, using TruePosition's network-based solution. Cingular Wireless LLC Petition for Limited Waiver of Section 20.18(f), CC Docket No. 94-102 (filed August 30, 2001). Because the timing of Cingular's proposal for its TDMA network did not permit Commission consideration, discussions have been initiated between Cingular and the FCC Enforcement Bureau staff concerning possible consent decrees with the Commission to resolve this compliance issue.

¹¹ *Cingular Request* at 27.

¹² *Id.* at 26. Cingular indicates that by December 31, 2001, 25 percent of all new handsets sold will be E-OTD capable. By March 31, 2002, 40 percent of all new handsets sold will be E-OTD capable; by June 30, 2002, 65 percent of all new handsets sold will be E-OTD capable; and by September 30, 2002, 100 percent of all new handsets sold will have E-OTD capability.

¹³ *E911 Fourth Memorandum Opinion and Order* 15 FCC Rcd at 17460, para. 53.

¹⁴ *Cingular Request* at 28.

¹⁵ *Id.*

¹⁶ *Id.* at 16-19.

deployment of E-OTD technology would benefit its subscribers by ensuring that they have Phase II location information when roaming on other GSM networks using E-OTD technology.¹⁷

11. Accordingly, Cingular requests a waiver from the Commission's requirements for handset-based solutions in section 20.18 of the Commission's rules to permit the deployment of E-OTD technology in its GSM network.

C. Positions of Interested Parties

12. On July 11, 2001, the Cingular compliance plan was placed on public notice.¹⁸ Comments largely supportive of Cingular's compliance plan were filed by handset manufacturers and wireless carriers, including AT&T Wireless,¹⁹ Ericsson,²⁰ the Cellular Telecommunications and Internet Association (CTIA),²¹ Siemens,²² and VoiceStream.²³ Cingular also submitted reply comments in support of its compliance plan.²⁴ AT&T supported Cingular's compliance plan, asserting that Cingular's testing confirmed its finding that currently there is no viable Phase II location solution that will satisfy the Commission's accuracy requirements for GSM networks.²⁵ Ericsson asserted that Cingular should be granted relief from the Commission's rules because its circumstances were similar to VoiceStream's for GSM.²⁶ VoiceStream also supported Cingular's position that E-OTD at this time is the "only viable option" for GSM operators.²⁷

13. The Association of Public-Safety Communications Officials-International, Inc. (APCO), the National Emergency Number Association (NENA), and the National Association of State Nine One One Administrators (NASNA) filed comments urging the Commission to consider whether Cingular fairly evaluated other solutions before choosing to deploy E-OTD in its GSM network.²⁸ On the other hand, the public safety organizations noted that, having submitted a proposed deployment schedule that is about to begin, Cingular should be well-positioned to meet that schedule and should be held strictly accountable for any delays if the Commission deems it appropriate to grant Cingular's request for relief.²⁹

III. DISCUSSION

14. We conclude that, based on the record, granting Cingular's proposed compliance plan and its request for waiver subject to the modifications specified below is consistent with the Commission's

¹⁷ *Id.* at 25.

¹⁸ WTB Seeks Comment on Wireless E911 Phase II Waiver Request Filed by Cingular Wireless LLC, Public Notice, DA 01-1628, (rel. July 11, 2001). Comments and Reply Comments filed in response to the Cingular request are listed in Appendix A.

¹⁹ AT&T Comments.

²⁰ Ericsson Comments.

²¹ CTIA Comments.

²² Siemens Comments.

²³ VoiceStream Reply Comments.

²⁴ Cingular Reply Comments.

²⁵ AT&T Comments at 1.

²⁶ Ericsson Comments at 2, 6.

²⁷ VoiceStream Reply Comments at 2.

²⁸ APCO, NENA, and NASNA Comments at 3.

²⁹ *Id.* at 4.

standards for relief from the E911 Phase II rules. We analyze below this request under the standards for relief set forth in the *E911 Fourth Memorandum Opinion and Order*.

A. Cingular Has Satisfied the Commission's Standards for E911 Phase II Relief.

15. ***Plan That Is Specific, Focused, and Limited in Scope.*** As the Commission directed, Cingular's compliance plan is specific, focused, and limited in scope. In its request, Cingular specifies the location technology it has selected to deploy in its GSM network, E-OTD, and identifies why a waiver is necessary to deploy this technology.³⁰ Specifically, Cingular explains that although it continues to believe that handset-based GPS technology is the best solution for GSM networks, GPS handsets will not be available in time to meet the Commission's implementation deadlines. Moreover, Cingular asserts that it "has been unable to identify the existence of another Phase II solution that currently provides fully compliant location information for GSM networks."³¹ Cingular explains that although its proposed E-OTD solution does not currently meet the handset-based accuracy requirements, it has the advantage of being able to be deployed significantly more rapidly than A-GPS handset solutions. Additionally, Cingular asserts that E-OTD currently satisfies the accuracy requirements for network-based solutions and that it should be able to satisfy the accuracy requirements for handset-based solutions by October 1, 2003.³² Cingular also notes that because E-OTD has become the standardized location method for GSM, E-OTD technology will be incorporated into all future GSM handsets.³³ Finally, Cingular indicates that it will provide location information for the embedded base of GSM subscribers who will not, initially, have E-OTD capable handsets by deploying a "safety net" location technology solution similar to the NSS solution proposed by VoiceStream.³⁴

16. ***As Close As Possible to Full Compliance.*** Cingular demonstrates it has taken concrete steps toward full compliance. It has selected GSM as its Phase II technology solution and made arrangements with vendors to enable it to commit to deploying E-OTD capable handsets to its subscribers in advance of the Commission's handset deployment benchmarks.³⁵ Specifically, Cingular commits to an aggressive handset rollout, indicating that by December 31, 2001, 25 percent of all handsets sold will be E-OTD capable.³⁶ By March 31, 2002, 40 percent of all new handsets sold will be E-OTD capable; by June 30, 2002, 65 percent of all new handsets sold will be E-OTD capable, and by September 30, 2002, 100 percent of all new handsets sold will have E-OTD capability.³⁷ In addition, Cingular indicates that it has an upgrade plan that "encourages subscribers to upgrade handsets every two years, thus facilitating E-

³⁰ Cingular uses two air interfaces in its digital network – TDMA and GSM. Cingular serves the vast majority of its subscribers using its TDMA network. See Letter from Ben Almond, Vice President-Federal Regulatory Affairs, Cingular, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 (filed Mar. 12, 2001) (attaching newspaper article indicating that approximately 12 percent of Cingular's subscribers used GSM as of March, 2001).

³¹ *Cingular Request* at 16-17.

³² *Id.* at 27.

³³ *Id.* at 17.

³⁴ *Id.* at 28.

³⁵ *Cingular Request* at 26. We recognize that, in exchange for reduced accuracy requirements, VoiceStream committed to a more aggressive deployment schedule for its E-OTD handsets than the deployment schedule provided by Cingular. We note, however, that in a recent filing, VoiceStream indicated that it will not be able to meet its accelerated deployment schedule, which tends to lend support to the interim benchmark dates that Cingular has proposed. Letter from Brian T. O'Connor, Vice President, Legislative & Regulatory Affairs, VoiceStream, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 at 1 (filed July 5, 2001).

³⁶ *Id.* We interpret Cingular's use of the term "sold" to mean "activated" as required by our rules.

³⁷ *Id.*; see also Discussion, *infra*, § III. B.

OTD deployment to the existing subscriber base.”³⁸

17. Cingular has also contacted its vendors to determine when necessary switch upgrades will be available and indicates that Ericsson switch upgrades will be available in the first quarter of 2002 and Nortel upgrades will be available by May 2002.³⁹ Cingular initially requested “six months from the availability of software and hardware upgrades to complete the necessary modifications, resulting in a projected deployment date no later than December 2002 in markets with outstanding PSAP requests for Phase II ALI.”⁴⁰ In its September 25, 2001 filing Cingular further clarified that deployment of the necessary switch upgrades would be completed by December 1, 2002.⁴¹ We grant Cingular’s request to complete all necessary Phase II switch upgrades by December 1, 2002. Consistent with its request,⁴² we also allow Cingular until December 31, 2002 to complete all outstanding valid PSAP requests for Phase II service that it receives before July 1, 2002. Valid PSAP requests received on or after July 1, 2002 shall be processed according to our current rules.

18. **Clear Path to Full Compliance.** Finally, Cingular presents a clear path to full compliance. Like VoiceStream, Cingular has indicated that it expects its E-OTD solution to improve to meet the accuracy requirements for handset-based solutions by October 1, 2003.⁴³ Although some parties continue to question whether E-OTD technology will improve to meet the Commission’s accuracy requirements for handset-based solutions (50 meters for 67 percent of calls),⁴⁴ recent evidence supports Cingular’s conclusion and suggests that E-OTD can meet and ultimately exceed these requirements. For example, in its reply comments, VoiceStream indicates that it remains confident that the accuracy of E-OTD will improve to meet or exceed the 50 meter handset accuracy standard and that its own current E-OTD trials are yielding accuracy results of 70 meters for 67 percent of calls.⁴⁵

19. We note, however, that although other carriers have demonstrated their confidence in the expected accuracy improvement of E-OTD by committing to deploy an alternative location technology if their E-OTD solution fails to meet the 50 meter/150 meter accuracy standard by October 1, 2003,⁴⁶ Cingular has made no such commitment in its compliance plan. We find it reasonable to impose this requirement on Cingular. As a condition of our approval of Cingular’s compliance plan, Cingular will be required to deploy an alternative location technology if its E-OTD solution does not improve to meet the accuracy requirements for handset-based solutions by October 1, 2003.

20. We conclude that Cingular’s proposal to deploy E-OTD in its GSM network represents a reasonable technology choice by which to meet the Commission’s Phase II requirements. As the Commission stated in granting the VoiceStream relief request, GSM is used by carriers serving only a small percentage of U.S. wireless subscribers and there is evidence to suggest that the development of ALI capabilities for use by GSM carriers lagged behind that for carriers using other interfaces, such as

³⁸ *Cingular Request* at 26.

³⁹ *Id.* at 27; Attachment I.

⁴⁰ *Id.*

⁴¹ Letter from Jim Bugel, Executive Director-Regulatory Affairs, Cingular, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 at 1 (filed September 25, 2001).

⁴² Cingular projected a deployment date of December 2002. *Cingular Request* at 27; Attachment I.

⁴³ *Cingular Request* at 27.

⁴⁴ APCO, NENA and NASNA Comments at 3.

⁴⁵ VoiceStream Reply Comments at 2.

⁴⁶ See e.g., AT&T Wireless Services, Inc. Request for Waiver of the E911 Phase II Location Technology Implementation Rules, CC Docket No. 94-102, at 5 (filed April 4, 2001).

AMPS, CDMA, and TDMA.⁴⁷ Although a year has passed since the Commission made that determination and new GSM technologies are becoming available,⁴⁸ we find Cingular's proposal to use E-OTD technology to be a suitable Phase II solution in light of the public safety benefits of E-OTD technology, including its ability to be deployed rapidly with a relatively brief transition to more precise levels of accuracy. Also, Cingular's use of E-OTD technology will ensure that its subscribers have Phase II location information when roaming nationwide on other GSM networks. Additionally, Cingular's "safety net" solution should provide more accurate and reliable location information for the embedded GSM base.⁴⁹ The majority of commenters agreed with Cingular that E-OTD is the best currently available solution for Cingular's GSM network.⁵⁰ Ericsson stated that E-OTD is "the most appropriate and feasible location solution for Cingular's GSM networks."⁵¹

B. Additional Conditions of Relief Granted

21. To assist in monitoring and enforcing each of the conditions imposed on Cingular, as set forth in summary form below, we also require that Cingular file Quarterly Reports with the Chief of the Enforcement Bureau and the Chief of the Wireless Telecommunications Bureau.⁵² Because mere assertions of compliance with the conditions of this Order and with our rules are not sufficient to show compliance, these reports are intended to provide specific, verifiable information to allow us to monitor Cingular's progress closely and determine whether Cingular is in compliance with each of the benchmarks and conditions of this Order and with other applicable provisions of the E911 rules, permitting prompt enforcement action if necessary.⁵³

22. Specifically, the Quarterly Reports must include the following information:⁵⁴

- The Report must include information on all pending Phase I and Phase II requests, including the name of the PSAP, the date the request was received by the carrier, whether or not it is valid, and its status. To the extent any request has been pending for more than six months, Cingular must identify the specific reasons underlying the failure to provide the requested service, the steps Cingular has taken to resolve the problems, and the anticipated date of full completion of the work necessary to deliver the requested information to the PSAP in question. If Cingular believes there are questions

⁴⁷ *E911 Fourth Memorandum Opinion and Order* at 17461-62, para. 56.

⁴⁸ Some technology vendors have fairly recently announced they have adopted their technologies for GSM. *See e.g., Grayson Wireless Adds GSM Compatibility to its Geometrix Wireless E911 Caller location System*, Press Release, (rel. Aug. 30, 2001).

⁴⁹ We note, however, that in their comments, APCO, NENA, and NASNA indicate their belief that Cingular's proposed "safety net" solution would be of minimal benefit in locating 911 callers because a 1000 meter radius creates a huge search area, adding little to the ability of emergency personnel to locate callers in an emergency. APCO, NENA, and NASNA Comments at 4. Although we acknowledge the limitations of the "safety net" technology, we nevertheless believe that it should provide a notable improvement in accuracy and reliability over Phase I location information, which provides only the location of the cell site or sector receiving the call.

⁵⁰ *See, e.g.,* AT&T Comments at 4-5, CTIA Comments at 3; Ericsson Comments at 2; VoiceStream Reply Comments at 2.

⁵¹ Ericsson Comments at 2.

⁵² Each of the conditions imposed on Cingular as described in this Order pertains only to Cingular's GSM network.

⁵³ To the extent Cingular believes any of the required information is proprietary, it may file a request for confidential treatment pursuant to 47 C.F.R. § 0.459.

⁵⁴ We delegate authority to the Chiefs of the Wireless Telecommunications Bureau and the Enforcement Bureau to require Cingular to provide additional information in its Quarterly Reports, if necessary, to evaluate Cingular's compliance with the terms and conditions of the relief granted, and its progress in deploying Phase I and Phase II E911 services.

concerning a PSAP's compliance with the conditions necessary for a valid Phase I or II request, such as its readiness to receive and utilize Phase I or Phase II information, it should identify specifically the question and the efforts it has undertaken, including the communications it has had with the PSAP, to resolve the question. Further, to help keep PSAPs informed, we direct Cingular to serve this report on APCO, NENA and NASNA.⁵⁵ In addition, the Commission will post this information on its website.⁵⁶ Because it is important for each individual PSAP with a pending Phase I or Phase II request to have access to this information, we authorize the Wireless Telecommunications Bureau to require any additional steps necessary to ensure PSAP access to this information.

- The Report must also include information on: current handset models being activated or sold that are E-OTD capable and important events affecting location-capable handset penetration levels, such as introduction of new handset models.
- The Report also must contain statements regarding whether Cingular has met each deployment benchmark, activation rate, accuracy milestone, and any other condition and, if not, the reasons for its failure to comply. Specifically, Cingular must report, in the Quarterly Report immediately following the benchmark date:⁵⁷ (1) for the October 1, 2001 benchmark, a statement of whether Cingular has begun selling and activating a single E-OTD capable handset model and, if so, on what date, and whether all E-OTD capable handsets sold and activated meet the accuracy requirement of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls;⁵⁸ (2) for the March 31, 2002 benchmark date, a statement of whether Cingular has begun to deploy its “safety net” location capability for subscribers without E-OTD handsets; (3) for the June 30, 2002 benchmark date, a statement of whether the “safety net” location capability has been deployed throughout Cingular’s network; (4) for the periods of December 31, 2001 to March 30, 2002, March 31, 2002 to June 29, 2002, and June 30, 2002 to September 29, 2002, the percentage of new handsets activated nationwide during the respective periods that were E-OTD capable, as well as the total number of new handsets activated nationwide during the respective periods and the total number of new handsets activated during those periods that were E-OTD capable; (5) for the September 30, 2002 benchmark, a statement of whether 100 percent of new digital handsets being activated nationwide were E-OTD capable; (6) for the December 1, 2002 benchmark date, a statement of whether Ericsson and Nortel switch upgrades have been completed, and if so, the date each upgrade was completed and the service areas covered by each type of switch; (7) for the December 31, 2002 benchmark date, a statement of each PSAP request received by June 30, 2002 and the date that each of those requests was satisfied; (8) for the October 1, 2003 benchmark date, a statement of whether Cingular has begun selling and activating new E-OTD capable handsets that have an accuracy of 50 meters for 67 percent of calls and 150 meters for 95 percent of calls; (9) for the December 31, 2005 benchmark, for Cingular’s GSM network, a statement of the percentage of the total number of Cingular subscriber handsets in service nationwide as of that date that are E-OTD capable, as well as the total number of Cingular subscriber handsets in service nationwide as of that date and the total number of those handsets that are E-OTD

⁵⁵ Cingular should serve the Executive Director of each organization as well as its counsel, to extent such counsel has been identified in the record in response to Cingular’s request for relief.

⁵⁶ See www.fcc.gov/e911.

⁵⁷ To the extent Cingular cannot provide the information required under this paragraph in its next Quarterly Report following the respective benchmark, it must file with the Chief, Enforcement Bureau, a request for extension of time to file the required information. Such request must be filed as early as possible before the Quarterly Report filing date, but generally no later than 10 business days prior to the Quarterly Report filing date. The request must specify the reasons for the request.

⁵⁸ See para. 23, *infra*.

capable as of that date.⁵⁹

- Cingular must support each Quarterly Report with an affidavit, from an officer or director of Cingular, attesting to the truth and accuracy of the report.
- To the extent Cingular anticipates that it will fail to satisfy any one of the conditions, it must advise the Commission of the problem. Seeking relief from that condition will not, in and of itself, insulate Cingular from possible enforcement in cases where Cingular has violated a condition of this Order.

23. The plan we approve requires Cingular to have made one entry-level E-OTD capable handset model available to its subscribers by October 1, 2001. On September 28, 2001, Cingular filed a letter notifying the Commission that it would be unable to meet its “handset deployment deadlines proposed in Cingular’s waiver request[,]” including the October 1 deadline.⁶⁰ Because we find Cingular’s proposed handset deployment schedule to be an integral component of its overall request for relief, we reject Cingular’s late-filed attempt to modify its deployment schedule and will address any failure to meet its deadlines through the enforcement process. With respect to the October 1, 2001 deadline, we also refer to the Enforcement Bureau whether Cingular failed to comply with the October 1, 2001 deadline set forth in the rule.

24. Cingular’s Quarterly Reports to the Commission should be the principal vehicle for providing the Commission with notice of anticipated problems but, to the extent unexpected problems arise affecting Cingular’s ability to perform in the period between reports, Cingular should notify the Commission through a supplementary filing. This supplemental filing must include specific details regarding the problems Cingular has encountered affecting its ability to comply.

25. These Quarterly Reports by Cingular will assist the Commission and the PSAPs in monitoring its compliance not only with its Phase II implementation plan, but also with the Phase I deployment requirements of the rules. Information on Phase I deployment will allow us to assess whether this aspect of E911 deployment - itself a critical public safety benefit - is being achieved. The reports on Phase II deployment will assist in monitoring Cingular’s compliance with both its compliance plan and the Phase II rules. The reports on handset deployment will assist us in assessing whether Cingular is in compliance with the requirements of its implementation plan.

26. Cingular is required to comply with each individual condition of this Order, including the reporting requirements set forth above. Consistent with the *E911 Fourth Memorandum Opinion and Order*, we note that the conditions imposed herein as part of the grant of Phase II relief have the same force and effect as a Commission rule itself. Each specific benchmark and Quarterly Report is a separate condition of the plan as approved. In addition, Cingular remains subject to all other requirements of the Commission’s wireless E911 rules apart from those specifically modified in this Order. To the extent that Cingular fails to satisfy any condition or Commission rule, it will be subject to possible enforcement action, including but not limited to revocation of the relief, a requirement to deploy an alternative ALI technology, letters of admonishment or forfeitures. We will not entertain requests for additional relief that seek changes in the requirements, schedules, and benchmarks imposed herein absent extraordinary circumstances.

27. Moreover, the approval of Cingular’s compliance plan does not alter Cingular’s ultimate

⁵⁹ Cingular’s Quarterly Reports are due February 1, May 1, August 1 and November 1 of each year, beginning February 1, 2002 and continuing through February 1, 2006. To the extent Cingular cannot provide any of the information required in its final report, it must file with the Chief, Enforcement Bureau, a request for extension of time to file the required information in accordance with the procedures set forth in n.57 *supra*.

⁶⁰ See Letter from Brian Fontes, Vice-President-Federal Relations, Cingular, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 at 1 (filed September 28, 2001).

obligation to comply with the Phase II rules and the conditions of this relief. Cingular remains ultimately responsible for providing timely compliant Phase II service. If Cingular does not have compliant Phase II service available on the dates set forth herein, it will be deemed noncompliant and referred to the Commission's Enforcement Bureau for possible action. At that time, an assertion that a vendor, manufacturer, or other entity was unable to supply compliant products will not excuse noncompliance. However, a carrier's "concrete and timely" actions taken with a vendor, manufacturer, or other entity may be considered as possible mitigation factors in such an enforcement context.⁶¹ As set forth above, Cingular is required to include in its Quarterly Reports a statement regarding whether it has met each deployment benchmark, activation rate, accuracy milestone, and any other condition as set forth below, and, if not, the reasons for its failure to comply. As noted above, the report must be supported with an affidavit. To the extent that the Commission receives a complaint or otherwise has questions regarding the information in the report, or more generally Cingular's compliance, Cingular may be required to provide additional documentation to refute the complaint or respond to the Commission's questions. In the event that Cingular's Phase II solution unexpectedly fails to comply with the Phase II accuracy requirements, Cingular shall, as a condition, propose to deploy a solution that does comply with those requirements, as well as the other conditions of the Order and applicable Phase II rules.⁶²

C. Summary of Conditional Relief Granted

28. First, we approve Cingular's proposed schedule for deployment of E-OTD capable handsets, for use with its GSM network, as follows:

October 1, 2001:	Begin selling and activating E-OTD capable handsets: Consistent with our current rule, Cingular must ensure that at least one entry-level E-OTD capable handset model is available;
December 31, 2001:	Ensure that at least 25 percent of all new handsets activated are E-OTD capable;
March 31, 2002:	Ensure that at least 40 percent of all new handsets activated are E-OTD capable.;
June 30, 2002:	Ensure that at least 65 percent of all new handsets activated must be E-OTD capable;
September 30, 2002:	Ensure that 100 percent of all new digital handsets activated are E-OTD capable;
December 31, 2005:	95 percent of all subscriber handsets in service are E-OTD-capable.

These revised benchmarks apply generally in the same manner as the benchmarks for location-based handset deployment in our rules.⁶³ In the *E911 Fourth Memorandum Opinion and Order* we recognized that measuring compliance with interim percentage benchmarks, such as the 25 and 50 percent

⁶¹ *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17458.

⁶² As stated above, seeking relief will not, in and of itself, insulate Cingular from possible enforcement in cases where Cingular has violated a condition of this Order.

⁶³ For example, the benchmarks apply only to new handsets, not to new activations of older model or refurbished handsets. The benchmarks also apply to all the carrier's areas of operation and services subject to the E911 rules, *i.e.*, nationally in the case of Cingular. See, *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17455, fn. 62 and 17453-4.

benchmarks in our rules, might be difficult.⁶⁴ We emphasized that, in evaluating compliance, we would look at the reasonableness of a carrier's measurement methodology and the circumstances surrounding the measurement.⁶⁵ To further clarify the benchmarks and their enforcement, we believe that one reasonable methodology to show compliance with the approved plan would be for Cingular to demonstrate that it has complied with the required fractional percentage figures during the period beginning at the date on which that percentage takes effect and ending at the date of the next benchmark.⁶⁶ Thus, for the 25 percent benchmark, Cingular would demonstrate that at least 25 percent of the new handsets it activated during the period between December 31, 2001 and March 30, 2002 were E-OTD capable. Similarly, it would demonstrate that at least 40 percent of new handsets it activated during the period between March 31, 2002 and June 29, 2002 were E-OTD capable. Finally, it would demonstrate that at least 65 percent of the new handsets it activated during the period between June 30, 2002 and September 29, 2002 were E-OTD capable. The difficulty in measuring compliance should not arise in the case of the other two handset sales benchmarks, *i.e.*, the benchmark for beginning to sell and activate E-OTD handsets and that for ensuring that 100 percent of all new digital handsets are E-OTD capable. Under the approved plan, Cingular must have begun selling and activating at least one model E-OTD capable handset no later than October 1, 2001; as of September 30, 2002, 100 percent of new digital handsets Cingular activates must be E-OTD capable.

29. Second, initially Cingular's E-OTD capable handsets must provide ALI with an accuracy of 100 meters/67 percent of calls and 300 meters/95 percent of calls. Thus, effective October 1, 2001, Cingular must ensure that all E-OTD capable handsets comply with this accuracy requirement.

30. Third, Cingular must ensure that all new E-OTD capable handsets activated on or after October 1, 2003 comply with an accuracy of 50 meters/67 percent of calls and 150 meters/95 percent of calls. In the event that Cingular's solution fails to comply with this accuracy requirement, Cingular is required, as a condition, to propose a solution that does comply with this requirement, as well as the other conditions of this Order and applicable Phase II rules.⁶⁷

31. Fourth, by December 1, 2002, Cingular must complete Ericsson and Nortel switch upgrades. By December 31, 2002, Cingular must complete deployment of Phase II service in markets with outstanding PSAP requests as of June 30, 2002.

32. Fifth, Cingular must begin deploying its "safety net" location capability for subscribers without E-OTD handsets by the March 31, 2002 and have deployment throughout its network by June 30, 2002. This technology must provide location information with an accuracy of 1000 meters or better for 67 percent of calls.

33. Sixth, Cingular must file Quarterly Reports, on its progress and compliance with the terms and conditions of the implementation plan and the wireless E911 rules, as set forth in paragraphs, 21-22, *supra*.

34. Seventh, with its February 1, 2002 Quarterly Report, Cingular must submit a Phase II rollout plan describing how it will prioritize PSAP requests and deploy Phase II service.

⁶⁴ *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17455 at n. 65.

⁶⁵ *Id.*

⁶⁶ If Cingular is found to be in violation of a benchmark using the measurement period described above, Cingular will be deemed to be out of compliance for the entire period over which the benchmark is measured.

⁶⁷ Proposing such a revised implementation plan would not relieve Cingular from its obligations under the rules and its revised implementation plan or insulate Cingular from possible enforcement action.

IV. PROCEDURAL MATTERS AND ORDERING CLAUSES**A. Paperwork Reduction Act of 1995 Analysis**

35. This Order does not contain an information collection applicable to ten or more entities.

B. Further Information

36. For further information, contact Jennifer Salhus of the Policy Division, Wireless Telecommunications Bureau, at (202) 418-1310.

C. Ordering Clauses

37. Accordingly, IT IS ORDERED that the Cingular petition for waiver of the wireless E911 Phase II rules with respect to the use of E-OTD for its GSM network IS GRANTED to the extent indicated and subject to the conditions indicated herein.

38. IT IS FURTHER ORDERED that authority is delegated to the Chief of the Enforcement Bureau and the Chief of the Wireless Telecommunications Bureau to administer, clarify, and, as appropriate, modify the Quarterly Reports specified in this Order, including requiring the filing of additional information.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Secretary