Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	
Enhanced 911 Emergency Calling Systems	)	
	)	

SPRINT CORPORATION QUARTERLY E911 IMPLEMENTATION REPORT

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SUMMARY

Sprint completed installation of the national platforms, switch and cellsite upgrades required to support Phase II E911 service across its entire nationwide network on June 14, 2002. Sprint has sold more than 8.8 million GPS enabled handsets since October of 2001. Sprint is actively engaged in the deployment and launch of live Phase II services in all of Sprint's markets where both the LEC and PSAP are prepared to move forward. During the first quarter of 2003, Sprint continued to reach new milestones, including:

- Introduction of three additional GPS enabled handset models for a total of fifteen different GPS-capable handset models available to customers.
- The sale of over 3 million GPS-enabled handsets (for a total of over 8.8 million such handsets sold since October of 2001).
- Deployment of live Phase II service in eighty one new PSAPs for a total of 202 live Phase II deployments in sixteen different states.
- Installation of 119 additional Phase I systems for a total of 1,798.

While Phase II deployment efforts continue to face challenges, deployment is beginning to increase and significant progress is expected over the next few quarters. As noted in previous reports, LEC and PSAP readiness issues continue to impact Sprint's ability to launch Phase II services. While FCC action confirming the obligations of PSAPs, LECs and wireless carriers have clarified the obligations of the parties involved, some delay continues as LECs address their cost recovery needs and as PSAPs address funding questions.

As disclosed in previous reports and in Sprint's Request for a Limited and Temporary Rule Waiver, Sprint did not reach 100% of handset activations by December 31, 2002. However, Sprint did continue to make dramatic strides in handset penetration rates. For the first quarter of 2003, 91% of handset sales and 75% of handset activations were GPS enabled. Even more dramatic, 97% of handset sales and 80% of handset activations were GPS enabled during the month of March.

Sprint continues to be a leader in E911 deployment efforts, being the first carrier to launch a handset-based Phase II location system that serves the State of Rhode Island, and being the first – and only – wireless carrier to begin selling GPS handsets by October 1, 2001. As Sprint has continually advised the Commission, however, it cannot unilaterally deploy Phase II services. LECs, PSAPs, vendors, state regulatory bodies and local officials must continue to work cooperatively on the technical and administrative hurdles faced in E911 deployment.

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SPRINT QUARTERLY PHASE II IMPLEMENTATION REPORT

Sprint Corporation, on behalf of its wireless operating company, Sprint Spectrum L.P., d/b/a Sprint PCS ("Sprint"), submits its Quarterly Phase II Implementation Report in compliance with the Commission's October 12, 2001 *Sprint Waiver Order*.[1]

I. INTRODUCTION

Sprint has sold over 8.8 million GPS-enabled handsets to date. All required network upgrades have been completed nationwide, *ahead* of the Commission's deadlines. Most importantly, Sprint successfully launched live Phase II service for eighty-one new PSAPs during the first quarter of 2003 for a total of 202 PSAPs in sixteen states.

Although Phase II continues to face substantial challenges, progress is being made and as LECs implement their cost recovery mechanisms, the pace is expected to increase. As Sprint has repeatedly noted to the Commission, LEC delays in upgrading their landline networks to accommodate Phase II wireless technology have prevented wireless carriers and PSAPs from proceeding with timely deployment. Although the Commission's ruling clarifying the role of LECs

was a step in the right direction, wireless carriers and PSAPs continue to wait for LECs to complete their cost recovery efforts. In addition, PSAPs face funding issues and some have even begun withdrawing requests. Based upon scheduled testing, however, Sprint expects to see continued improvements in the number of deployed PSAPs.

As outlined in previous reports and as more fully set forth in the *Sprint Waiver Request*[2], Sprint handset sales have not met expectations. Sprint did not meet the Commission's benchmark of 100% GPS enabled handset activations by December 31, 2002. Sprint was the only major carrier that continued to be subject to this deadline, however, and still anticipates meeting the 100% penetration rate before any other wireless provider. Sprint anticipates that it will reach the 100% activation rate by June 30, 2003, and will continue to be the leader in Phase II enhanced 911. Sprint dramatically increased sales of GPS enabled handsets during the first quarter of 2003. 75% of handset activations and 91% of handset sales were GPS enabled. For the month of March, 80% of activations and 97% of sales were GPS enabled.

II. CURRENT STATUS OF PHASE I AND II REQUESTS

The *Sprint Waiver Order* specified that this Sprint report "must include information on all pending Phase I and Phase II requests."[3] Sprint provides this information below.

A. Phase I Status

Sprint has worked cooperatively with PSAPs across the country to deploy Phase I (cell site/sector location) E911 services. It has accommodated Phase I requests regardless of PSAP

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[1] *See, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Request for Waiver by Sprint Spectrum L.P. d/b/a Sprint*, 16 FCC Rcd 18330 (2001)("*Sprint Waiver Order*").

[2] *See, In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems,* Sprint Request for a Limited and Temporary Rule Waiver, December 20, 2002, DA 03-20, January 3, 2002, ("*Sprint Waiver Request*").

[3] *Sprint Waiver Order* at ¶ 28.

technology choices and has utilized CAS, NCAS and Hybrid CAS/NCAS (*i.e.,* LEC) solutions. As of May 1, 2003, Sprint is providing Phase I E911 services in 1,798 PSAP jurisdictions, which represents the addition of 119 Phase I systems from last quarter. A list of the deployed Phase I systems is attached as Appendix A.

There are 683 PSAPs in the Phase I implementation process. This number represents PSAPs that have made a Phase I request and serve geographic areas covered by Sprint. Of these pending Phase I requests, 124 have been pending for less than six months, and Appendix B lists these PSAPs. Appendix C lists the 183 PSAPs that have been in the implementation process for more than six months. Appendix D lists the 376 PSAP requests that have been placed on hold as a result of PSAP action. The reasons that Phase I was not implemented within six months varies by PSAP, but the parties involved are working cooperatively to resolve these implementation issues.

An important component of E911 implementation is open communication with the PSAPs, and Sprint has attempted to keep PSAPs informed of its efforts and status. To Sprint's knowledge, there are no pending complaints against the Company where the installation process was not completed within six months. The Received Date listed in Appendix C indicates the date that Sprint first received the PSAP request, even if the PSAP did not at that time meet the prerequisites of Rule 20.18. Sprint's objective is to deploy Phase I with as many PSAPs as possible. Sprint has not segregated those requests that meet the prerequisites contained in Rule 20.18, but has attempted to move forward on all requests. At the Commission's request, Sprint will provide additional information with respect to specific deployment and PSAP circumstances presented in each case.

In analyzing the deployment of Phase I services, Sprint has attempted to categorize the reasons for delays into primary "root causes." The "Primary Issues which Created Delay" column in Appendix C identifies these causes of delay. As reflected by the anticipated start dates, many of the root causes have been resolved and the implementation process for these requests is moving forward. As previously advised, the delay root causes generally fall into the following categories:

- PSAP Approval of Call Routing/PSAP Boundary Issues/MSAG Issues. Many of the pending PSAP requests fall into the primary root cause of "PSAP approval of call routing." This is the most important step in the Phase I implementation process. Sprint must receive concurrence from the PSAP of the geographic area that the PSAP will serve. Sprint provides each PSAP with a coverage map, including cell and sector coverage. Additionally, Sprint provides each PSAP with a spreadsheet that identifies cell and sector information. Before E911 service can be implemented, however, the PSAP must verify which cell sectors it will serve. All PSAPs in a given geographic area must agree on the appropriate cell and sector from which each will accept calls. This is often a politically impacted decision by the PSAPs in identifying and concurring in cell site coverage and jurisdiction boundary issues. Additionally, the PSAP must provide the proper Master Street Address Guide ("MSAG") street address for the cell site. The time within which these routing decisions and boundary clarifications are made is beyond Sprint' control. Sprint proactively contacts the PSAP if the PSAP does not provide the approval within a reasonable amount of time.

- Stand-alone ALI Databases. Some of the PSAPs are served by ALI databases known as stand-alone ALI systems ("SALI"). These SALI databases are not connected to a national ALI network infrastructure, and are thus incapable of receiving information dynamically. A PSAP that has been utilizing a SALI must initiate ALI connectivity provisioning which creates additional coordination, planning, provisioning, cost identification and cost recovery activities that generally do not fit within a definable timeline. These additional activities are generally within the control of the PSAP.

- Requests Put On Hold. Implementation of some PSAPs is on hold because the PSAP is not ready to move forward. In some cases, the PSAP issued its request before it had developed the necessary plan for Phase I implementation or was simply not ready for Phase I. Sprint has chosen to keep these files active in order to be in position to support the PSAPs when it decides to move forward or has taken the necessary steps to implement Phase I.

- LEC Issues. In some cases, the LEC did not have enough capacity in its selective router to install the 911 trunking from the wireless carrier. This required that the LEC

> upgrade its system to accommodate the trunking requirements. In other cases, the existing 911 network did not support SS7 signaling so that Sprint was required to install different trunks. Additionally, Sprint has at times experienced delays in obtaining the necessary psuedo-ANIs from the LEC so that they could be used for routing and ALI query purposes.

Sprint and its primary Phase I vendor, Intrado, have worked diligently to move the Phase I implementation process forward. Jointly with PSAPs, we have identified and addressed issues in a manner that exemplifies the good faith efforts that all involved parties must display to successfully deploy Phase I E911 services. Sprint will continue its Phase I deployment activities.

B. Phase II Status

Sprint continues to deploy Phase II systems as rapidly as possible. As detailed below, Sprint continues to sell GPS handsets at an increasing rate, although activation rates have not risen as quickly as originally anticipated. Sprint has now sold in excess of 8.8 million GPS enabled phones. Sprint completed the required installation of national platforms and upgrades to its network infrastructure ahead of the Commission's schedule. Sprint's entire national network was Phase II service enabled as of June 14, 2002. Sprint has launched live Phase II service for 202 PSAPs in sixteen states.

As previously reported, however, LEC delays have affected the validity of certain PSAP requests and prevented Sprint from deploying all PSAP requests made as of June 30, 2002 by December 31, 2002. In anticipation of that deadline, Sprint contacted each PSAP requesting Phase II service prior to December 31, 2002, and confirmed both their status and a schedule for future action towards deployment. Accordingly, Sprint is operating under an agreed upon schedule with all PSAPs as permitted under the Commission's recently issued *Richardson Re-*

consideration Order.[4] Once the ALI provider has made the necessary upgrades and permits the transmission of Phase II data, and PSAP readiness is achieved, Sprint will be able to complete work on these Phase II requests.

As of May 1, 2003, Sprint has successfully launched Phase II service for 202 PSAPs. Attached as Appendix E is a list of launched Phase II PSAPs. Attached as Appendix F is a list of the 176 PSAPs whose requests have been outstanding less than six months. Attached as Appendix G is a list of the 546 PSAPs whose requests have been outstanding longer than six months. Attached as Appendix H is a list of the 13 PSAPs that have requested that their Phase II requests be placed on hold status.

Sprint has not attempted to segregate these requests as to whether they are valid or not under the *Richardson Order*, and has moved forward in implementation efforts with all requesting PSAPs. Moreover, Sprint has reached an agreed upon implementation schedule with each of the Phase II requesting PSAPs as permitted under the *Richardson Reconsideration Order* and accordingly, Sprint is in compliance with the Commission's rules regardless of the validity of a given request. To confirm, however, where a PSAP has made a Phase II request, and the ALI provider has not upgraded its ALI database, or prohibits the use of that ALI database contingent upon tariff approval, the PSAP is unable to receive or utilize Phase II information. As Sprint has noted in previous filings, a PSAP will be unable to receive Phase II data unless the necessary ALI and CPE upgrades have been performed.[5]

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[4] *In the Matter of Petition of City of Richardson Texas,* Order on Reconsideration, CC Docket 94-102, FCC 02-318, (November 26, 2002) ¶29.

[5] *See* Sprint Reply Comments in Support of its Petition for Reconsideration and Clarification, CC Docket No. 94-102 (Jan. 28, 2002).

a. Individual PSAP Deployments

Sprint has launched Phase II E911 service for 202 PSAPs in sixteen states. This is an increase of eighty-one PSAPs over the last quarterly report. PSAP deployments are now increasing at a rapid rate and it is no longer practical to list them in the body of this report. Sprint continues to await LEC completion of their cost recovery programs, however, as well as other miscellaneous delays associated with PSAP CPE and funding. Sprint has remained proactive with all Phase II requesters and will proceed with implementation as quickly as possible once these delays have been resolved.

b. Lucent markets

Sprint completed installation of switch software upgrades in all of its Lucent markets on March 6, 2002, almost three months in advance of the Commission's May 30, 2002 deadline.

c. Nortel markets

Sprint completed installation of switch software upgrades in all of its Nortel markets on June 14, 2002, over a month and a half in advance of the Commission's August 1, 2002 deadline.

III. CURRENT HANDSET SALES

The *Sprint Waiver Order* specified that this Sprint quarterly report "must also include information on current handset models being activated or sold that are GPS-capable and important events effecting location-capable handset penetration levels, such as introduction of new handset models."[6]

Sprint introduced three new GPS enabled models to its handset lineup during the first quarter of 2003 for a total of fifteen GPS enabled models. The number of GPS enabled handset

[6] *Sprint Waiver Order* at ¶ 28.

sales to distribution outlets increased from 66% of sales to 91% of sales. As of the end of first quarter 2003, Sprint had sold over 8.8 million GPS-enabled handsets. As anticipated and disclosed in previous reports and as projected in *Sprint's Waiver Request*, Sprint did not reach 100% of activations by December 31, 2002. However, Sprint did continue to dramatically increase GPS sales. During the month of March, 80% of activations and 97% of handset sales were GPS enabled.[7]

IV. COMPLIANCE WITH OUTSTANDING BENCHMARKS

The *Sprint Waiver Order* specified that this Sprint report "must also contain statements regarding whether Sprint PCS has met each deployment benchmark and, if not, the reasons for its failure to comply."[8]

Sprint has met all benchmarks passed, to date, with the exception of the Commission's requirement that 100% of new handset activations be GPS enabled by December 31, 2002.[9] As described in previous filings, the down turn in the market and the economy shopping of customers caused activations of GPS enabled handsets to dip. As discussed in the *Sprint Waiver Request*, Sprint anticipates that it will meet the 100% penetration rate by June 30, 2003. Sprint has met all other benchmarks to date. Specifically, it began selling GPS handsets by October 1,

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[7] The FCC's Phase II rules apply to voice capable "handsets", not to mobile radios containing only a data application (*e.g.,* laptop computers, personal digital assistants). Sprint notes that it has in inventory an extremely limited number of non-GPS enabled data-centric devices that offer voice capacity. The technology for these data-centric devices is continuing to develop and the timeline for development of GPS capability is less certain. For this reason, the timeline may differ from the standard handset product line. Sprint will advise the FCC of continuing developments regarding these devices, in its deployment reports and otherwise, as appropriate.

[8] *Sprint Waiver Order* at ¶ 28.

[9] The Commission's Waiver Order is ambiguous regarding the manner in which compliance with the July 31, 2002, 25% activation rate was to be calculated. At least one interpretation of the Order is that compliance should be determined based upon the percentage of GPS enabled handsets sold between July 31, 2002 through December 30, 2002. *See,* Waiver Order, ¶28. Under this interpretation, Sprint exceeded the benchmark by a large margin.

2001. Sprint completed its network upgrades to its Lucent and Nortel switches well before the Commission deadlines of May 30, 2002 and August 1, 2002. The Commission also ordered Sprint to provide service to all PSAPs who had made a valid request on or before June 30, 2002, by December 31, 2002. The majority of requests received prior to June 30, 2002 would be considered invalid under the rules in effect at the time the requests were issued, because the PSAP was unable to receive or utilize Phase II information. The validity of these requests should no longer be an issue, however, because Sprint has reached agreed upon implementation schedules with all Phase II requesting PSAPs as permitted under the *Richardson Reconsideration Order.* Accordingly, Sprint is in compliance with the *Sprint Waiver Order*.

The *Sprint Waiver Order* also directed Sprint to provide a statement regarding the accuracy milestone. 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.[10] Measurements taken from its current operating systems indicate that it is meeting the Commission's accuracy requirements.

V. AFFIDAVIT REQUIREMENT

The *Sprint Waiver Order* specifies that Sprint "must support each Quarterly Report with an affidavit, from an officer or director of Sprint, attesting to the trust and accuracy of the report."[11] Appendix I is the conforming Declaration of Kathy A. Walker, Senior Vice President – Operations, Sprint.

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[10] 47 C.F.R. § 20.18(h)(2).

[11] *Sprint Waiver Order* at ¶ 28.

VI. CONCLUSION

Sprint remains a leader in E911 deployment efforts. Through this report, Sprint provides the Commission with updated information concerning its activities in this important area.

Respectfully submitted,

SPRINT CORPORATION on behalf of
SPRINT SPECTRUM L.P., d/b/a Sprint PCS

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May 1, 2003

CERTIFICATE OF SERVICE

I, Jo-Ann Monroe, certify that on May 1, 2003, I caused a copy of the foregoing "Sprint Corporation Quarterly E911 Implementation Report" to be served on the following parties by first-class postage prepaid mail:

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