ORIGINAL

WILKINSON) BARKER) KNAUER) LLP

DOCKET FILE COPY ORIGINAL

RECEIVED

JAN 10 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

2300 N STREET, NW
SUITE 700
WASHINGTON, DC 20037-1128
TEL 202.783.4141
FAX 202.783.5851
www.wbklaw.com

January 10, 2001

Magalie Roman Salas, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *CC Docket No. 94-102*
December 27, 2000 Letter Regarding DCC PCS's E-911 Implementation Report, Call Sign KNLF909
Amendment to Dobson Cellular Systems, Inc.'s Report of November 9, 2000.

Dear Ms. Salas:

Dobson Cellular Systems, Inc. ("Dobson") on behalf of its affiliate, DCC PCS, Inc., by counsel, hereby responds to the Commission's letter dated December 27, 2000 ("Letter"). In the Letter, the Commission stated that DCC PCS, Inc. has failed to file the required report detailing its plan to implement an enhanced 911 Phase II automatic location identification system.

On November 9, 2000, Dobson, on behalf of itself and its affiliates, submitted to the FCC the "Report of Dobson Cellular Systems, Inc. on Enhanced 911 Phase II Implementation" ("Report" — copy attached). In the Report, Dobson listed its market service areas and the description of its implementation of an automatic location identification system. This Report was designed to encompass all Dobson affiliates and subsidiaries, to the extent such subsidiaries and affiliates are required to comply with E-911 requirements. By this letter, Dobson hereby amends the Report to include DCC PCS, Inc. solely for the purpose of being responsive to the Bureau's request.

Dobson notes that DCC PCS, Inc. is *not* presently subject to the E-911 rules, including the reporting requirement. Section 20.18(a) of the Commission's rules provides that broadband PCS licensees are subject to the E-911 requirements "solely to the extent that they offer real-time, two way switched voice service that is connected to the public switched network and utilize

No. of Copies rec'd 0+4
List ABCDE

an in-network switching facility which enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls."[1] Because DCC PCS, Inc. does not currently have any customers, it is not offering such services, and therefore, is not subject to the requirements of section 20.18(i). By this filing, Dobson, does not in any way concede that DCC PCS, Inc. is subject to the E-911 requirements until such time as it actually provides such services.

If you have any further questions, please contact the undersigned.

Sincerely,

WILKINSON BARKER KNAUER, LLP

Robert G. Morse
Timothy A. Kruyer[2]

cc: Wendy Austrie

Enclosure

---

[1]47 C.F.R. § 20.18(a).

[2]Practice limited to matters and proceedings before federal courts and agencies.

Federal Communications Commission
Washington, D.C. 20554

December 27, 2000

KNLF909
WILKINSON, BARKER, KNAUER & QUINN
2300 N STREET NW
WASHINGTON, DC 200371128

Re: November 9, 2000 E911 Phase II Carrier Implementation Report

By the Wireless Telecommunications Bureau:

1. Pursuant to section 20.3(h) of the Federal Communications Commission's (Commission) rules, wireless carriers were required to submit reports on or before November 9, 2000 to the Commission on their plans for implementation of wireless Enhanced 911 (E911) Phase II automatic location identification (ALI) systems.[1] As of the date of this notice, DCC PCS, Inc. has failed to submit the required report.

2. In accordance with Section 308(b) of the Communications Act of 1934 as amended, 47 U.S.C. § 308(b), DCC PCS, Inc., shall within fifteen (15) days of the date of this letter submit a report on its wireless E911 Phase II ALI implementation.

3. The report shall contain information on DCC PCS, Inc.'s implementation plans, as outlined in the *Public Notice*, released September 14, 2000, Wireless Telecommunications Bureau Provides Guidance on Carrier Reports on Implementation of Wireless E911 Phase II Automatic Location Identification.[2] A copy of the *Public Notice* is attached hereto.

4. Failure to file a report concerning DCC PCS, Inc.'s implementation plan for wireless E911 Phase II ALI systems constitutes a violation of the Commission's Rules. Failure to comply with this notice constitutes a continuing violation of the Commission's Rules and will be referred to the Commission's Enforcement Bureau and could result in administrative penalties, including monetary forfeiture. *See Forfeiture Policy Statement*, 12 FCC Rcd 17087 (1997).

5. Your report can be filed either electronically or as a paper filing. Electronic filings should be made using the Electronic Comment Filing System (ECFS). Reports filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/e-file/ecfs.html. In completing the transmittal screen, parties should include their full name, Postal Service mailing address, and the docket number of this proceeding. Parties filing electronically should also e-mail a copy of their report to

---

[1] Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Third Report and Order*, 14 FCC Rcd 17388 (1999)(*E911 Third Report and Order*).

[2] *See Public Notice* Wireless Telecommunications Bureau Provides Guidance on Carrier Reports on Implementation of Wireless E911 Phase II Automatic Location Identification, DA 00-2099, CC Docket No. 94-102.

WAustrie@fcc.gov. Parties who choose to file by paper must file an original and four copies of each filing with the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, SW, Washington, D.C. 20554 and a diskette copy to the Commission's copy contractor, International Transcription Service, Inc. (ITS), CY-B400, (202) 857-3800. In addition, parties must submit one copy to Wendy Austrie, Policy Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Reports will be available for public inspection during regular business hours in the FCC Public Reference Room, Room CY-A257, 445 12th Street, S.W., Washington, D.C. 20554.

6. Should you have any questions regarding this matter, please contact Ms. Wendy Austrie at 202-418-1310.

Federal Communications Commission

John A. Chudoran

Thomas J. Sugrue, Chief
Wireless Telecommunications Bureau

PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Fax-On-Demand 202 / 418-2830
TTY 202 / 418-2555
Internet: http://www.fcc.gov
ftp.fcc.gov

DA 00-2099
Released: September 14, 2000

WIRELESS TELECOMMUNICATIONS BUREAU PROVIDES GUIDANCE ON CARRIER REPORTS ON IMPLEMENTATION OF WIRELESS E911 PHASE II AUTOMATIC LOCATION IDENTIFICATION

CC Docket No. 94-102

In this Public Notice, the Wireless Telecommunications Bureau (Bureau) provides guidance to wireless carriers on the information they must submit in their reports to the Federal Communications Commission (Commission) on their plans for implementation of wireless Enhanced 911 (E911) Phase II automatic location identification (ALI) systems. Carrier reports must be filed with the Commission on or before November 9, 2000. The reports are intended to encourage advance planning to meet the deadlines established in the Commission's E911 rules, facilitate coordination between wireless carriers and parties -- such as public safety organizations, equipment manufacturers, and local exchange carriers -- involved in the implementation of Phase II, and assist the Commission in monitoring the Phase II implementation schedule.[1]

The Commission's E911 rules allow carriers to choose a handset-based or network-based approach to complying with those rules. If a handset-based approach is selected, the carrier must begin selling and activating ALI-capable handsets by October 1, 2001. Thereafter, by December 31, 2001, 25 percent of the carrier's new handset activations must be ALI-capable; 50 percent must be ALI-capable by June 30, 2002; and by December 31, 2002, 100 percent of that carrier's new digital handset activations must be ALI-capable. For a carrier deploying a network-based ALI solution, the carrier must provide Phase II service to 50 percent of callers within six months of a PSAP request and to 100 percent of callers within 18 months of the PSAP request

To ensure timely planning and communication among the parties involved in Phase II – and thus the successful deployment of ALI capabilities - carrier reports should include the following information, in narrative form. Each aspect of the information outlined below should be addressed completely.

---

[1] Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Third Report and Order*, 14 FCC Rcd 17388 (1999)(*E911 Third report and Order*).

Background/Contact Information

(1) Carrier Identifying Information: The carrier's name and TRS number. Carriers may obtain their TRS number from the FCC's *Carrier Locator*, January, 2000 edition, by downloading the appropriate files (LOCAT-99.ZIP and LOCAT99.PDF) from the FCC-State Link Internet site at http://www.fcc.gov/ccb/stats. Carriers may purchase a hard copy by calling the International Transcription Service, Inc., at (202) 857-3800.

(2) Contact Information: The name, title, address, telephone number, facsimile number, and e-mail address of the person or persons responsible for the carrier report.

E911 Phase II Location Technology Information

(1) Type of Technology: Identification of the Phase II location technology(ies) that the carrier plans to deploy across its service territory, *e.g.*, network-only, handset-only, hybrid or a combination thereof. Please also include a complete description of the technology(ies) that is/are chosen and the name of the corresponding vendor or vendors. Indicate what technology will be used in each individual area of the carrier's service territory.

(2) Testing and Verification: A description of the testing method used, or to be used, to determine the accuracy of the ALI solution(s) selected, and a description of the results of tests already conducted. Note: The Commission provided guidelines for determining accuracy of ALI solutions in OET Bulletin No. 71, issued April 12, 2000. Copies of this bulletin can be downloaded from the Commission's Web site, at http://www.fcc.gov/oet/info/documents/bulletins/.

(3) Implementation Details and Schedule: A complete description of the carrier's strategy and schedule for the installation of the hardware and software needed to implement its chosen technology (handset-based, network-based or hybrid systems). For example, indicate whether both hardware and software changes will be necessary and fully describe the precise nature of the changes. In addition, please provide the roll-out schedule for the installation of the ALI technology(ies).

(4) PSAP Interface: A description of hardware and software changes necessary to transmit Phase II data to PSAPs and the carrier's strategy and schedule for the installation and/or modification of such hardware or software changes.

(5) Existing Handsets: A description of the carrier's strategy and schedule for the upgrade and/or replacement of existing customer handsets, if applicable.

(6) Location of Non-Compatible Handsets: A description of the best efforts that carriers employing a handset-based or hybrid system will take to accommodate handsets that are incompatible with the carrier's ALI system, *e.g.*, handsets that do not have ALI capability, or handsets that are ALI- capable, but are not compatible with the carrier's particular

handset-based or hybrid system.[2]

(7) Other Information: Please provide any other information, including a description and history of any Phase II requests received from PSAPs, that will assist the Commission and affected parties in monitoring and coordinating the deployment of E911 Phase II in accordance with the timetables set forth in the Commission's rules.[3]

As stated in the *E911 Third Report and Order*, we believe the requirement to provide an advance report should not impose substantial new burdens on carriers. Thus, we permit the electronic filing of the reports, which will be placed on the Commission's E911 Web site for ease of accessibility. We also permit joint filings, to the extent possible. Carriers participating in the submission of joint reports (*e.g.*, carriers using a specific air interface or ALI technology) should highlight common technical documentation for all carriers in the group while distinguishing individual implementation plans by carrier.

Electronic filings should be made using the Electronic Comment Filing System (ECFS). Reports filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/e-file/ecfs.html. In completing the transmittal screen, parties should include their full name, Postal Service mailing address, and the docket number of this proceeding. Parties filing electronically should also e-mail a copy of their report to jwhaley@fcc.gov. Parties who choose to file by paper must file an original and four copies of each filing with the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 12th Street, SW, Washington, D.C. 20554 and a diskette copy to the Commission's copy contractor, International Transcription Service, Inc. (ITS), CY-B400, (202) 857-3800. In addition, parties must submit one copy to Jay Whaley, Policy Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Reports will be available for public inspection during regular business hours in the FCC Public Reference Room, Room CY-A257, 445 12th Street, S.W., Washington, D.C. 20554.

Carriers should note that this report does not constitute a final or irrevocable commitment to the ALI technology that they will employ. As we mentioned in the *E911 Third Report and Order*, carriers may make good faith changes in their implementation plans after their initial report is filed, including changes in ALI technologies.[4] These changes are to be filed within thirty days of the adoption of any such change.[5] Updates can be filed in the same manner as described above.

For further information concerning this proceeding, contact Jay Whaley, Policy Division, Wireless Telecommunications Bureau at (202) 418-1310.

- FCC -

---

[2] *E911 Third Report and Order* at 14 Rcd 17414,15 (paras. 55,59).
[3] *See, e.g.*, 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*, FCC 00-326, (rel. September 8,2000) (*Fourth Memorandum Opinion and Order*) at paras. 25, 30 and 45.
[4] *E911 Third Report and Order* at 14 Rcd 17428 (para. 89).
[5] *See, Fourth Memorandum Opinion and Order* at para. 80.

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 Systems	)	CC Docket No. 94-102
	)	
Phase II Implementation Report	)	TRS No: 817856

To: The Commission

I. REPORT OF DOBSON CELLULAR SYSTEMS, INC. ON ENHANCED 911 PHASE II IMPLEMENTATION

Pursuant to Section 20.18(i) of the Federal Communications Corporation's (FCC) rules, 47 C.F.R. § 20.18(i), Dobson Cellular Systems, Inc., on its own behalf and that of its subsidiary licensees, (hereinafter referred to as "Dobson"), hereby report on its plans for implementing Phase II Enhanced 911 ("E911") service. This report is responsive to the requirements set forth in the FCC rules and is organized in accordance with the Wireless Telecommunications Bureau's guidance.[1]

It should be noted that a portion of the information provided herein was gathered from third party vendors and from publicly available information, including but not limited to, filings made at the FCC by participants in this docket. To the best of its knowledge and in good faith, Dobson believes the information submitted herein this filing is true and accurate; however, Dobson cannot be held responsible for the ultimate veracity of any information received from

[1]Public Notice, *Wireless Telecommunications Bureau Provides Guidance on Carrier Reports on Implementation of Wireless E911 Phase II Automatic Location Identification*, CC Docket No. 94-102, DA 00-2099 (rel. Sept. 14, 2000).

third party vendors or other publicly available information. As permitted under Section 20.18 of the rules, Dobson reserves the right to amend its filing.

BACKGROUND/CONTACT INFORMATION

(1) Carrier Identifying Information

Company	TRS#
Dobson Cellular Systems, Inc.	817856

(2) Contact Information

Correspondence or other inquiries regarding this report should be addressed to:

Sean O'Hara
E911 Development Manager
3910 South Avenue
Youngstown, OH 44512
Phone: 330-509-6510
Fax: 330-509-3620
Email: *sean.o'hara@dobson.net*

With a copy to:

Ronald L. Ripley
Corporate Counsel
DOBSON CELLULAR SYSTEMS, INC.
13439 North Broadway Extension
Oklahoma City, Oklahoma 73114
(405) 529-8500 *voice*
(405) 529-8765 *fax*
E-mail: *rripley@dobson.net*

II. E911 PHASE II LOCATION TECHNOLOGY INFORMATION

(1) Type of Technology

Dobson has determined at this time, based on the unique nature of its service areas and the challenges such service areas present, and the requirements imposed by the FCC, to pursue a network-based solution to meet the requirement of Phase II E911 deployment. Dobson has approximately 738 cell sites and 16 Mobile Switching Centers (MSCs) operating predominantly in the rural areas of Alaska, Arizona, California, Georgia, Kansas, Maryland, Michigan, Missouri, New York, Ohio, Oklahoma, Pennsylvania, Texas and West Virginia. (See Attachment for specific markets) Most of the licenses held by Dobson are 800 MHz cellular band TDMA (IS-136), with a small mix of 800 MHz CDMA (IS-95). Dobson's infrastructure is provided by Nortel and Lucent.

To graphically present how Dobson proposes to meet the FCC's mandate, a block diagram of a Wireless E911 Phase II system is shown in Figure 1. The existing nodes in the current system are the Mobile Switching Center (MSC), Selective Router, Automatic Location Identification (ALI) database, and Public Safety Answering Point (PSAP). To provide Phase II compliance, the Position Determination Equipment (PDE), (location processor and communications equipment), Mobile Positioning Center (MPC), and information in compliance with the rules, possibly Wireless Automatic Location Identification (WALI) are required. The following paragraphs describe each node of the network and what changes, if any, are required.

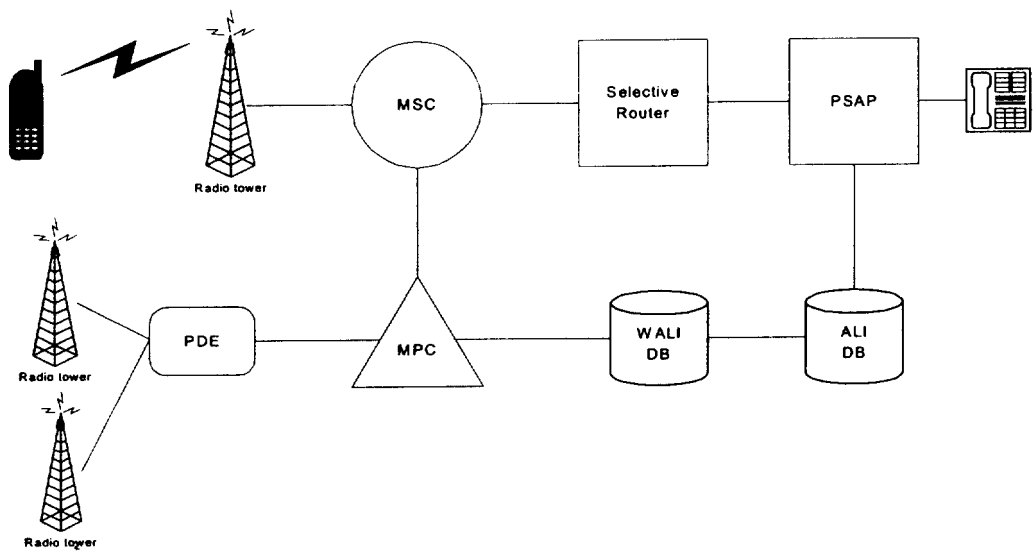

Figure 1. Network Diagram

Mobile Switching Center

The Mobile Switching Center (MSC) requires new capabilities for routing emergency 911 calls. The MSC will interface to the MPC to determine PSAP routing. Dobson understands that its

current vendors, Nortel and Lucent, will release new software upgrades in the third quarter of 2001 to provide Phase II functionality.

Mobile Positioning Center

The Mobile Positioning Center (MPC) is a new network node needed to provide Phase II capabilities. The MPC, which provides the primary interface to the PDE, is responsible for gathering location information and determining the correct routing for the MSC for an emergency 911 call. The MPC presents E911 location information to the WALI/ALI database and provides updates upon requests from the WALI/ALI, which are in turn provided to the (PSAP). The functionality of the MPC can be provided by purchasing an MPC or using a service bureau that provides the MPC and WALI/ALI database functionality. Two ALI vendors under consideration for the service bureau approach are SCC and Xypoint. Both vendors are being used during Phase I testing.

ALI Database

The ALI database maintains current location information for emergency 911 callers. With the requirements of Phase II, this functionality needs to be upgraded to include dynamic updates for mobile 911 calls and a provision for communicating to a new network node – the MPC. Some ALI providers use a WALI to maintain the dynamic updates and other providers use the same database for dynamic and static data items. In either case, upgrades to the ALI database are required.

WALI Database

The WALI database is an optional node in the network based on how the ALI provider implements the dynamic capabilities of the database. The approach used will be dependent on the ALI/MPC service bureau provider.

Position Determination Equipment (PDE)

Because Dobson primarily provides service to rural areas, it faces particular challenges in identifying a location system that meets the FCC mandate. To date, Dobson has conducted surveys of available technologies for the determination of the location of its IS-136 and IS-95 handset. Dobson has held discussions with vendors proposing various technologies and with other carriers to determine the suitability of the proposed technologies.

Several competing technologies are under investigation and consideration by Dobson, including systems proposed by TruePosition, Grayson, SigmaOne, and U.S. Wireless. Handset-based technologies for compliance purposes have been ruled out at present due to the lack of availability, changeover costs, and issues related to incompatible roamers visiting the Dobson systems. Again, due to a high percentage of rural areas, Dobson's systems host a vast number of roamers. Compatible technologies with those selected by neighboring carriers are therefore of great importance. It appears that a handset-based solution, based on current technologies, would pose major issues in providing Phase II E-911 coverage to these roamers.

In general, it appears that all PDE vendors are in the initial development phase of their respective solutions and that at least one major design and development iteration is necessary before such solution is commercially marketable or usable in an operational system. Factors supporting this

determination include the lack of commercially available equipment, lack of operation and maintenance systems, and operating systems that are incompatible with the existing cellular infrastructure and the limited testing conducted to date. In addition, there is a need for an enormous deployment that no vendor seems to be ready to undertake. Dobson is committed to meeting the FCC mandate and work with vendors to plan and implement a satisfactory deployment.

Based on publicly available trial results published by the PDE vendors, Dobson has opted to focus on the merits of a network-based solution. Dobson believes that the requirements set by the FCC for Phase II compliance are extremely challenging for rural carriers such as Dobson. To be more specific, carriers selecting a network-based solution are required to deploy to 50% of callers within 6 months of PSAP request and to 100% within 18 months. Furthermore, Phase II requires that the wireless carriers provide the longitude and latitude of the mobile unit making the 911 call to the PSAPs, within a radius of no more than 100 meters (328 feet) for 67% of calls, and 300 meters (984 feet) for 95% of calls for network-based solutions. The aggressive deployment timeline and the accuracy requirements seem to be unreachable by the PDE vendors based on current technology and information available from vendors. Additionally, in the rural areas the geometry of the deployed cell sites causes major concerns about the accuracy of the location due to the distance between cell sites. On the other hand, areas with higher cell density lend themselves to better cell site geometry, thus leading to higher accuracy and availability of locations for network solution.

The network-based solutions available to meet Dobson's requirements include a variety of network-based solutions including Angle of Arrival (AOA), Time Difference of Arrival (TDOA), RF signal measurement, and their combinations. These techniques may be used on their own or in a variety of combinations to attack the location determination requirement. For instance, systems performing spatial processing or multipath characterization of signals may employ a combination of time difference of arrival and relative signal strength measurements of the multipath profile. Table 1 provides the status of the four systems currently being studied by Dobson.

Table 1. PDE Vendor Status

Vendor	Service Options	Technology	Air Interface	Status	Rural Coverage
Allen Telecom	Turnkey/ Service Bureau	TDOA AOA	IS-136 IS-95	Demonstrated IS-136 IS-95	Undetermined
TruePosition	Turnkey/ Service Bureau	TDOA	IS-136 IS-95	Demonstrated IS-136	Undetermined
SigmaOne	Turnkey/ Service Bureau	TDOA AOA	IS-136	Demonstrated IS-136	Claims 2 site coverage
USWireless	Service Bureau	RF Finger Printing AOA	IS-136 IS-95	Demonstrated IS-136 IS-95	Claims 1 site coverage

Figures 2 and 3 depict the predicted coverage of the AOA and TDOA technologies for Youngstown (Suburban) areas, one of Dobson's more dense areas. Based on the plots, it is not

clear at this point that any of these systems will meet the FCC-mandated accuracy and availability requirements. Dobson is planning to conduct field trials in the coming months and will assess the viability of these solutions. Based on the results of its testing, Dobson reserves the right to change its plan and select an alternative ALI technology, as permitted under the FCC's rules.[2]

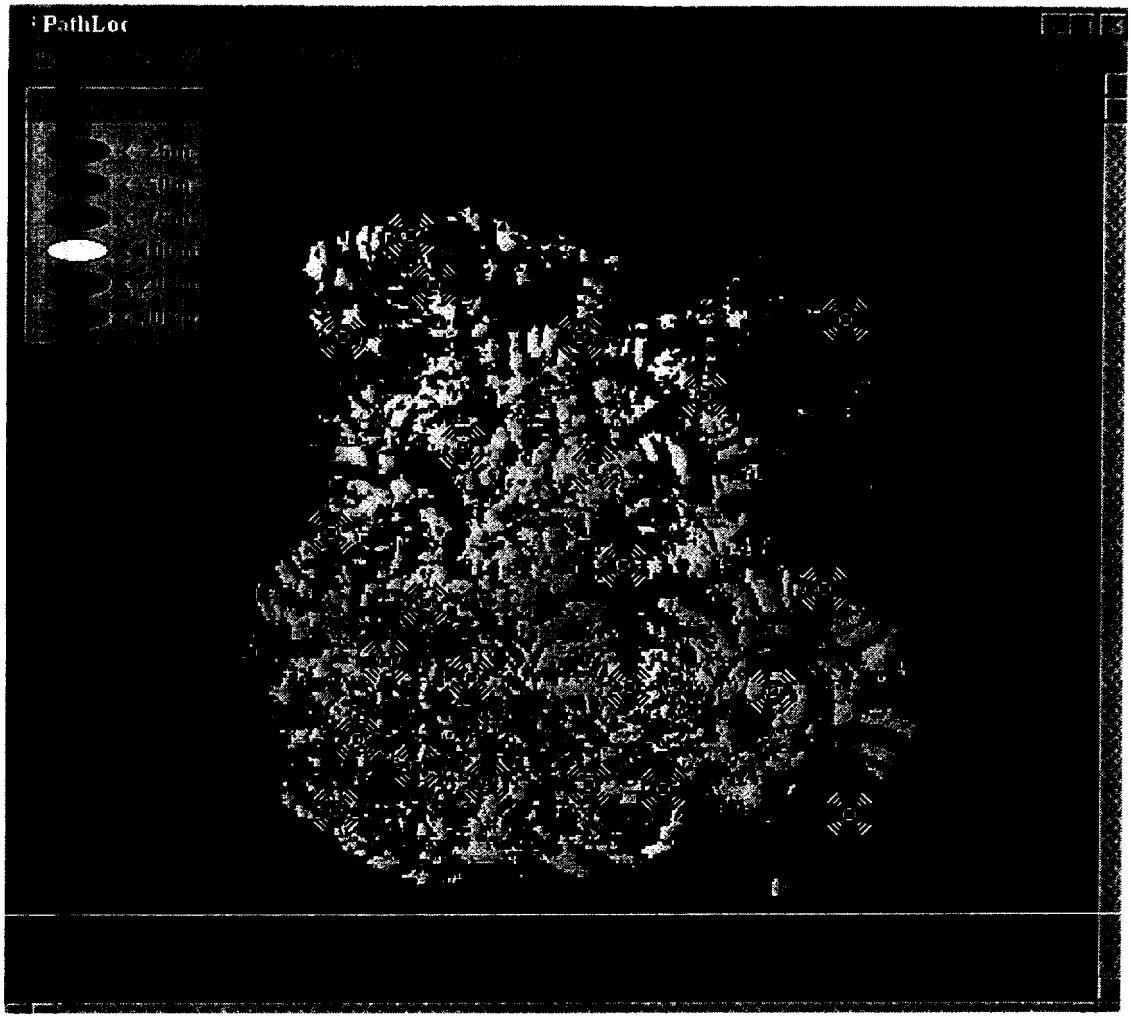

Figure 2. Youngstown-AOA Coverage

[2]*See Third Report and Order*, 14 FCC Rcd. 17388, ¶ 89 (1999)

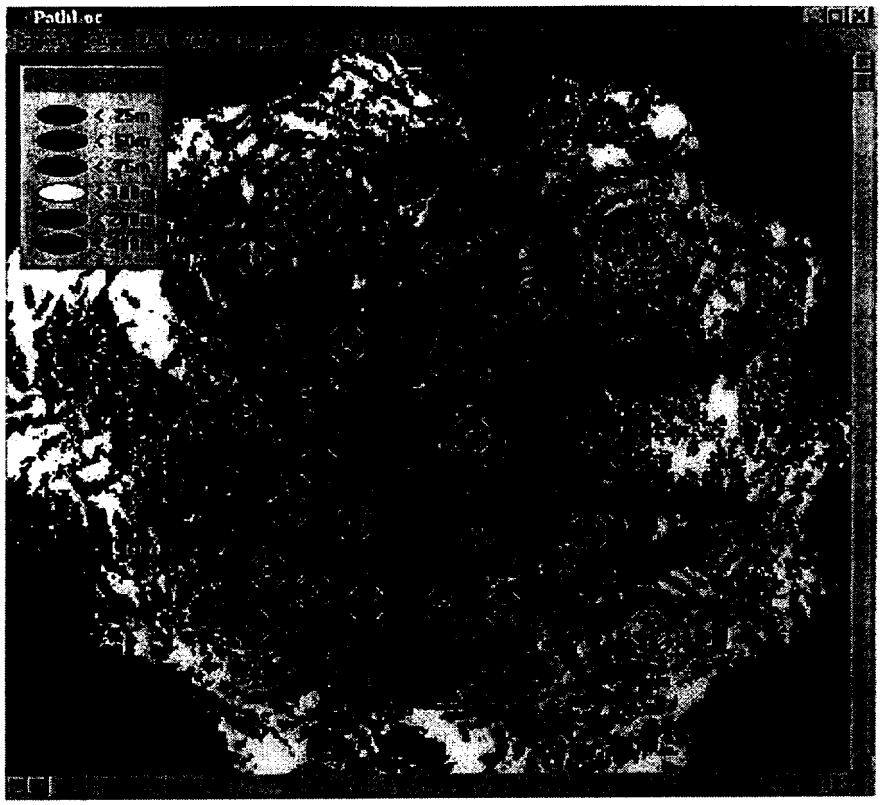

Figure 3. Youngstown-Hybrid AOA/TDOA Coverage

(2) Testing and Verification

Phase I testing and verification has been initiated. This reduces the complexity of the Phase II testing and verification by verifying interim upgrades to many of the network nodes with the exception of the PDE. Phase I requires the addition of the MPC node and communication to both the ALI database and MSC and therefore will test and verify their connectivity and functionality. Because Dobson has received Phase I requests, it has allowed Dobson to have already established some procedures and entered into agreements with some of the same vendors Dobson is considering for Phase II. This should allow for a smoother transition to Phase II upon request. The testing accuracy of Phase II ALI solutions will be in accordance with the guidelines provided in OET Bulletin No. 71, issued April 12, 2000.

(3) Implementation Details and Schedule

The following is a stage-by-stage overview together with the preliminary timetable of Dobson's Phase II deployment plans.

- **Stage 1 Location System Implementation Planning**

  Identify potential "good fit" solutions and highlight potential pros and cons of PDE and Mobile Positioning Center (MPC) candidates. Focus will be on determining the technical and business implications of incorporating solutions from specific companies offering candidate PDE and MPC technologies and establishing a

roadmap for selecting from the available alternatives. This task will culminate in the rating of available technologies and definition of next steps for formal evaluation of the most viable alternatives. Possible solutions to be assessed include:

- Network-based AOA/TDOA/Hybrid Solution
- Network-based Location Pattern Matching Solution
- Network-based/Handset-assisted Enhanced Observed Time Difference (E-OTD) Solution

A master plan will be developed to include system integration and testing, location system field trials (or review of previously conducted trials), vendor selection, deployment planning and operational/acceptance testing and certification after deployment.

- **Stage 2: Technology Selection**

A technology evaluation and test plan will be developed to conduct a thorough in-depth evaluation of the commercial readiness, implementation impact and performance of the candidate location technologies. This test plan will include assessment of PDE and MPC technologies identified in Stage 1. The integration and testing activities required to verify operational end-to-end connectivity between the E911 routing equipment, MPC, Dobson's upgraded MSC(s) and the selected PDE technology(s) will be included in this plan. This includes verification of MPC, MSC and PDE functionality and interface compatibility per TR45 J-STD-036 and operational verification of Automatic Location Identification (ALI) database connectivity per TR45 J-STD-036.

- **Stage 3: Deployment of Trial Systems, Conduct Field Trials, and Document Results**

Dobson will work with the PDE and MPC vendors to deploy selected trial systems as necessary. This effort may include the total deployment responsibility on Dobson's part and coordination with vendors deploying their own systems. The effort will be scaled, as appropriate, once particular PDE and MPC vendors are selected and the scope of each trial deployment is known. Dobson will evaluate third-party trial results determined to be adequate for Dobson's needs.
After deployment and integration of the PDE, MPC and MSC upgrades, Dobson will conduct system trials according to test plans that take into account Dobson's unique location-based service requirements.
The collected test data will be processed and analyzed to determine PDE system location coverage, accuracy, reliability and latency as well as MPC and MSC functionality and loading issues. Test results will be documented for different propagation environments (urban, suburban, rural, etc.) and mobile unit operating scenarios (mobile, stationary, indoor, outdoor, etc.).

- **Stage 4: Deploy Selected Location System(s)**

Dobson will work with the selected PDE and MPC vendors and its existing infrastructure vendors to deploy the selected systems for full compliance with Phase II E911 requirements. The deployment process will include review of location system-specific deployment considerations, review of equipment specifications, network deployment analysis and coverage prediction, site selection and visit, site acquisition, site DGPS survey, equipment installation, system integration and site sign-off.

- **Stage 5: Conduct System Acceptance Testing and Certification of Compliance with FCC Rules**

  Dobson will perform detailed test data gathering and analysis for the deployed systems and compare the results against FCC requirements and Dobson specific requirements. Any discrepancies and/or deviations with respect to test objectives or FCC requirements will be identified. Areas of special consideration such as coverage holes and areas with performance anomalies will be highlighted. The results will be documented in a final report.

Schedule

Dobson will interact with requesting PSAPs to undertake a deployment schedule necessary to meet the requirements. Figure 4 depicts a sample schedule covering all the five stages. The timeline is, of course, dependant on the needs of the requesting PSAP, the availability of PDE hardware and software, the availability of interconnect facilities, and the readiness of the PSAP system to interface to the new technology (See 47 C.F.R. 20.18 (j)).

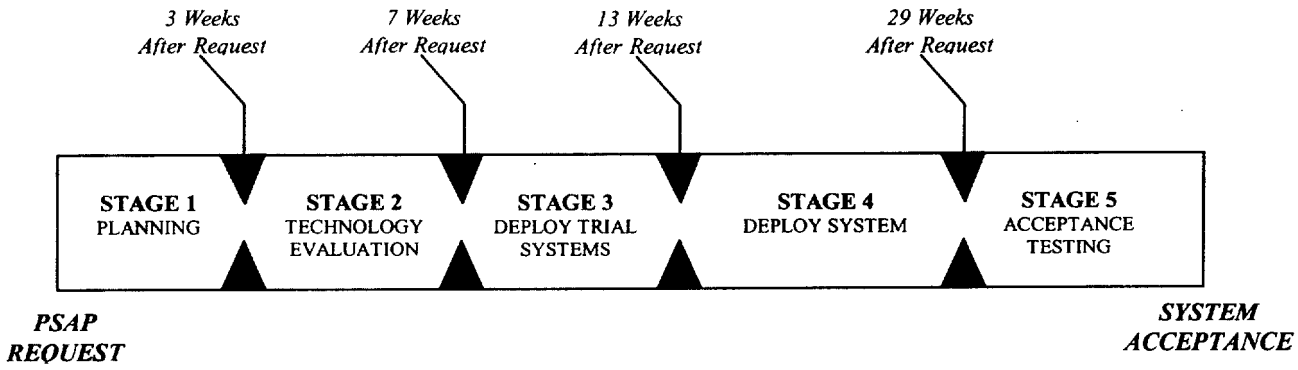

Figure 4. Estimated Timeline for E911 Phase II

(4) PSAP Interface

Dobson has met with vendors such as SCC and Xypoint in regards to providing the PSAP interface functions and database management. Each company already has a national presence, is providing similar services to Dobson today, and has assured Dobson of its ability to meet the FCC's Phase II requirements.

(5) Existing Handsets

Dobson has tentatively selected a network-based solution for purposes of the instant filing; therefore this issue is not applicable. If after further analysis and discussions it is determined that a handset solution is preferable, Dobson will amend its filing with updated information.

(6) Location of Non-Compatible Handsets

Dobson has tentatively selected a network-based solution for purposes of the instant filing; therefore this issue is not applicable. If after further analysis and discussions it is determined that a handset solution is preferable, Dobson will amend its filing with updated information.

(7) Other Information

Dobson has not received any Phase II E911 requests from PSAPs. Once Dobson receives a request from a PSAP capable of receiving and utilizing the data elements associated with the service and having a cost recovery mechanism in place, Dobson will begin implementation consistent with the timeline described above, subject to the availability of necessary equipment and software from vendors.[3]

[3] 47 C.F.R. § 20.18(j).

CONCLUSION

As discussed herein, the instant report is submitted pursuant to the requirements set forth in Section 20.18(i) of the FCC's rules. In the event that additional information is requested, Dobson will consult with the FCC to discuss appropriate means of ensuring that business proprietary information is not publicly disclosed.

Finally, Dobson emphasizes that the Phase II deployment challenges are particularly acute for wireless carriers, such as Dobson, serving primarily rural areas. Unlike urban areas with high cell density, current location technologies may effectively require a rural carrier to supplement its commercial network with additional sites in order to provide reliable Phase II service in compliance with the rules. Phase II costs may therefore be far more difficult for rural carriers to recover than for carriers in urban markets. Dobson remains committed to complying with its Phase II obligations, but again notes that deployment of such capabilities in rural areas will pose unique challenges and require imprudent investment.

Respectfully submitted,

DOBSON CELLULAR SYSTEMS, INC.

Ronald L. Ripley
Corporate Counsel
DOBSON CELLULAR SYSTEMS, INC.
13439 North Broadway Extension
Oklahoma City, Oklahoma 73114
(405) 529-8500 *voice*
(405) 529-8765 *fax*
E-mail: *rripley@dobson.net*
Its Attorney

E911 PHASE II REPORT

ATTACHMENT

APPLICABLE DOBSON LICENSEES AND SERVICE AREAS

LICENSEE	MARKET NAME	MARKET NO.
Dobson Cellular Systems, Inc.	Alaska 1 - Wade Hampton RSA	315(A1)
	Alaska 3 - Haines RSA	317(A1)
	Arizona 1 - Mohave RSA	318(A1)
	Arizona 5 - Gila RSA	322B
	California 4 - Madera RSA	339A
	California 7 - Imperial RSA	342B
	Cumberland, MD-WV MSA	269(A1)
	Cumberland, MD-WV MSA	269(A2)
	Enid, OK MSA	302A
	Erie, PA MSA	130A
	Georgia 1 – Whitfield RSA	371A
	Hagerstown, MD MSA	257A
	Kansas 5 - Brown RSA	432A
	Maryland 1 - Garrett RSA	467A
	Maryland 2 - Kent RSA	468A
	Maryland 3 - Frederick RSA	469A
	Michigan 10 - Tuscola RSA	481A
	Michigan 3 - Emmet RSA	474A1
	Missouri 1 - Atchison RSA	504A
	Missouri 2 - Harrison RSA	505(A1)
	Missouri 4 - De Kalb RSA	507A
	Missouri 5 - Linn RSA	508(A2)

	New York 3 - Chautauqua RSA	561A
	Ohio 11 - Columbiana RSA	595A
	Ohio 2 - Sandusky RSA	586A
	Oklahoma 2 - Harper RSA	597A
	Oklahoma 5 - Roger Mills RSA	600(B1)
	Oklahoma 6 - Seminole RSA	601B
	Oklahoma 7 - Beckham RSA	602(B1)
	Pennsylvania 1 - Crawford RSA	612A
	Pennsylvania 10 - Bedford RSA	621(A1)
	Pennsylvania 2 - McKean RSA	613A
	Pennsylvania 6 - Lawrence RSA	617A
	Pennsylvania 7 - Jefferson RSA	618A
	Santa Cruz, CA MSA	175A
	Sharon, PA MSA	238A
	Texas 10 - Navarro RSA	661A
	Texas 16 - Burleson RSA	667A
	Texas 2 - Hansford RSA	653B
	Texas 9 - Runnels RSA	660(A1)
	Youngstown-Warren, OH MSA	066A