

MINNESOTA SOUTHERN WIRELESS COMPANY  
AND  
MINNESOTA SOUTHERN CELLULAR TELEPHONE COMPANY  
1640 Madison Avenue  
Mankato, Minnesota 56001

Magalie Roman Salas, Secretary  
Office of the Secretary  
445 - 12th Street, S.W.  
Washington, D.C. 20554

**Attention: Patrick Forster, Senior Engineer  
Room 3-A104  
Policy Division  
Wireless Telecommunications Bureau**

**Re: Implementation Plan of Wireless E-911 Phase II  
Automatic Location Identification  
Notice Pertaining to CC Docket No. 94-102**

**REVISED E-911 PHASE II STATUS REPORT**

Dear Ms. Salas:

In accordance with the Third Report and Order in CC Docket No. 94-102 and the Commission's related Public Notice, Mimeo DA 00-2099, released September 14, 2000, we hereby submit our revised report on the status of implementation plans for Wireless E-911 Phase II Automatic Location Information ("ALI"). This report replaces the report filed on November 9, 2000. The current report is as follows:

**Background/Contact Information**

1) Carrier Identifying Information:

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Minnesota Southern Cellular Telephone Company  
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### **E-911 Phase II Location Technology Information**

1) Type of Technology: Our initial implementation report filed with the Commission on November 9, 2000, stated: a) our belief that a hybrid system would be the most effective ALI solution available to us, but it appeared that this solution may be prohibitively expensive; b) that if forced to select the technology based upon information available in November of 2000, we would select a handset-based solution; and c) that the final selection would be based upon a combination of pricing and receipt of an acceptable equipment delivery date, once the equipment is ready for commercial deployment.

Based upon the more up-to-date information that we have received, we hereby state our intent to employ a network-based solution for Phase II ALI.

We presently anticipate that Phase I ALI capability will be implemented by December 31, 2001, pursuant to an agreement that we recently signed with TeleCommunication Systems ("TCS"). TCS is the service provider that will transport E-911 Phase I and Phase II ALI data from our switch to the Public Safety Answering Point ("PSAP").

With respect to Phase II ALI, our planned implementation will be accomplished in two phases. The first phase will encompass the upgrade of our wireless system switching equipment to handle E-911 Phase II ALI, and will consist of the installation of new hardware at the switch, the installation of ALI equipment at 50% (*i.e.*, 20) of our cell sites, and integrating all of this equipment into our TCS connection. We currently plan to install the Grayson Wireless Geometrix E-911 Phase II ALI solution.

The first phase of our Phase II ALI deployment is scheduled to begin in March 2002 when NorTel Networks ("NorTel") (our switch vendor) will install a new software load (and its associated hardware requirements) into our switch. Once NorTel has installed the software and associated hardware, we will begin installing the location equipment at the switch and our cell sites in May 2002.

It is possible that 20 cell sites could be completed by July 2002; but it is more reasonable to assume (due to the potential problems associated with a new technology and a newly installed system) that 10 cell sites will be upgraded by July 2002, with a total of 20 sites upgraded by December 31, 2002. This timetable should allow adequate time to test and troubleshoot the equipment. We will endeavor to turn the sites up earlier, if possible.

At this juncture, we wish to emphasize that our network serves a rural area and that it is very spread out. Our network contains geographic areas that are not contiguous to any other geographic areas; and we have several cell sites that are virtually in complete isolation from the rest of our system. At present, there is no technology that will provide E-911 Phase II ALI functionality at these cell sites without mounting equipment on new towers. The Phase II ALI solution for these cell sites will require time to engineer, locate and lease before implementation can occur. Hopefully, advances in technology will provide additional solutions to these problem cell sites.

The second phase of our E-911 Phase II ALI deployment will encompass the cell sites discussed in the preceding paragraph. We plan to begin engineering Phase II ALI solutions for these cell sites in 2002 with a plan to implement them in 2003. Once again, every effort will be made to implement a Phase II ALI solution for these cell sites as quickly as possible.

It bears emphasizing that this is a major project for us. The implementation of the first phase of our E-911 Phase II ALI deployment will be very time consuming. This technology is new and (as is the case with all new technologies) it is reasonable to assume that it will be filled with many new problems. The same human resources devoted to this project will also, of necessity, have to be devoted to the implementation of other Commission mandates, such as TTY TDD E-911, CALEA, and wireless number portability. It will be extremely difficult to implement E-911 Phase II ALI in our problem cell sites at the same time as we implement it on our other cell sites and comply with these other Commission mandates.

Finally, the implementation of E-911 Phase II ALI will be very expensive. The cost to implement E-911 Phase II ALI is estimated to be approximately \$2 million. When coupled with the financial requirements associated with meeting other Commission mandates, the total amount (which is well in excess of \$2 million) associated with implementing everything exceeds our typical annual capital budget; and it is difficult for a company of our comparatively small size to absorb the costs of all of these Commission mandates.

We are actively interested in public safety and in deploying E-911 Phase II ALI in our service areas at the earliest feasible date.

2) Testing and Verification: We anticipate regular testing of random locations throughout our service area, beginning in areas where the PSAP has requested Phase II deployment.

However, notwithstanding the foregoing, the following testing and verification methodology looks promising: Each individual cell site sector will have test calls placed on it utilizing various models of portable and 3 watt subscriber units. These tests will be performed using both AMPS and TDMA handsets. The geographic location of the subscriber unit can be verified by using a separate, handheld GPS receiver and comparing the coordinates against the coordinates identified using the ALI equipment's location determination subroutine.

3) Implementation Details and Schedule: The implementation schedule is as set forth in the section of this report styled "Type of Technology." It is anticipated that the equipment installation will be performed by the equipment vendor under a "turn-key" contract.

4) PSAP Interface: As noted above, we have contracted with TCS to transport Phase I and Phase II ALI data from our switch to the PSAP. Our switch will be interconnected to TCS' Signal Control Point ("SCP") and its Mobile Position Center ("MPC") through the SS7 network. A data link will be established between the MPC and our Position Determining Equipment ("PDE") to transport the location information. A data link will also be established to interconnect the MPC to the ALI database.

The voice portion of the call will be forwarded to the selective router. The location information will be sent from the PDE to the MPC. The MPC will send the calling party's location, along with the number of the calling party, to the ALI database. The PSAP will request this data from the ALI database.

5) Existing Handsets: Not applicable.

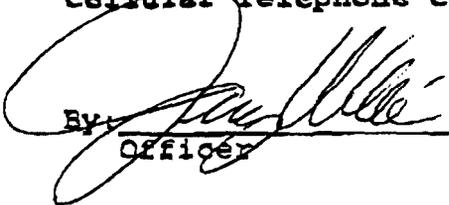
6) Location of Non-Compatible Handsets: Not applicable.

7) Other Information: We are coordinating the implementation of E-911 Phase I and Phase II ALI with the PSAP.

Respectfully submitted,

Minnesota Southern Wireless  
Company and Minnesota Southern  
Cellular Telephone Company

Dated: 11/29/01

By: 

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Officer