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McDERMOTT, WILL & EMERY

A Partnership Including Professional Corporations
600 13th Street, N.W.
Washington, D.C. 20005-3096
202-756-8000
Facsimile 202-756-8087
www.mwe.com

Christine M. Gill
Attorney at Law
cgill@mwe.com
202-756-8283

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November 9, 2000

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

VIA MESSENGER

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Report on Implementation of Wireless E911 Phase II Automatic Location Identification; CC Docket 94-102

Dear Ms. Salas:

Enclosed please find an original and five copies of Southern Communications Service, Inc.'s Report on the Implementation of Wireless E911 Phase II Automatic Location Identification pursuant to the Wireless Telecommunications Bureau's Public Notice released September 14, 2000 (DA 00-2099).

Should the FCC have any questions concerning this report, please do not hesitate to contact the undersigned.

Very truly yours,

Christine Gill

Christine M. GIll

Enclosures
cc: Patrick Forster

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

Southern LINC
Box 79490
5[illegible] Glenridge Connector
Suite 500
Atlanta, Georgia 30342
Tel 678 443 1500

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SOUTHERN COMPANY

Energy to Serve Your World

November 9, 2000

VIA MESSENGER

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Report on Implementation of Wireless E911 Phase II Automatic Location Identification; CC Docket No. 94-102

Dear Ms. Salas:

Southern Communications Services, Inc. d/b/a Southern LINC® ("Southern"), hereby submits the following report in response to the Commission's request that carriers provide information detailing their plans for the implementation of wireless Enhanced 911 (E911) Phase II Automatic Location Information.[1]

Southern, a wholly-owned subsidiary of Southern Company, operates a unique digitally enhanced, wide-area Specialized Mobile Radio (SMR) system in the Southeastern United States, covering the states of Georgia, Alabama, the Panhandle of Florida and southeastern Mississippi. Southern's wide-area SMR system employs Motorola's proprietary Integrated Digital Enhanced Network technology ("iDEN"), a digitally enhanced, time division multiple access technology.

Southern provides dispatch, text messaging, paging, and interconnected voice and Internet service using a digital handset. Southern's footprint covers more than 127,000 square miles covering urban centers such as Atlanta and Birmingham, as well as large rural areas. Furthermore, Southern's single switch network has a customer base that is for the most part comprised of business users, such as electric utilities and law enforcement agencies who use the system for their internal business communications. The majority of Southern's service is dispatch oriented, with data, paging and interconnected service being a growing but smaller percentage overall of the usage on the system.

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[1] Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, *Third Report and Order*, 14 FCC Rcd 17388 (1999); *see also* Wireless Telecommunications Bureau Provides Guidance on Carrier Report on Implementation of Wireless E911 Phase II Automatic Location Identification; *Public Notice*, released September 14, 2000.

Background/Contact Information

Southern's TRS number is 812395 and contact information is as follows:

Michael D. Rosenthal
Director of Regulatory Affairs
Southern Communications Services, Inc.
5555 Glenridge Connector, Suite 500
Bin #79490
Atlanta, Georgia 30342
(678) 443-1541- telephone
(678) 443-1552- facsimile
email: mdrosent@southernco.com

E911 Phase II Location Technology Information

Type of Technology

Southern has diligently pursued an E911 Phase II solution that will comply with the FCC's guidelines, and it continues to do so. Southern's unique iDEN system coupled with its very large, predominantly rural service territory has forced it to consider all three types of E911 solutions, (i.e. network-based, handset-based and a combined network/handset solution) in order to identify possible solutions that are technologically compatible and address the diverse requirements of a network that covers extensive rural areas, as well as large cities. Attracting the attention of vendors has not been an easy task. Southern is a regional carrier, not a nationwide player. Furthermore, it uses Motorola's proprietary iDEN technology, which is not as widely used in the U.S. wireless carrier community relative to CDMA, TDMA, and GSM. In light of these facts, it has been particularly difficult for Southern to obtain responses from vendors, to generate interest in discussions, or to schedule demonstrations. Some vendors have chosen not to pursue solutions that are compatible with iDEN. At this time, Southern has not been able to obtain enough information from vendors or complete the testing necessary to definitively choose the Phase II location technology it plans to deploy across its service territory. Southern is continuing to evaluate any and all possible solutions.

Southern recognizes the importance of the Phase II mandate, and it wants to assure the Commission that it is continuing to pursue all avenues to find a solution to meet the timing and accuracy requirements set forth by the Commission. Because of its size and the large costs associated with E911 implementation that Southern will incur, Southern is attempting to ensure that it chooses a solution that is as accurate as possible, as well as rational from a business standpoint.

To date Southern has contacted or attempted to contact numerous Phase II E911 solution vendors for both handset and network based solutions. Although Southern has not eliminated any particular vendor or solution, it has learned that many of the vendors offering the solutions

most likely to be available in the near term are not developing solutions for the iDEN technology or are unable to meet the Commission's accuracy requirements at this time.

Due to the proprietary nature of the iDEN technology and the size of Southern as a carrier vis-à-vis typical cellular and/or PCS carriers, Southern has not been able to attract serious attention from many vendors who are offering E911 Phase II solutions. In evaluating potential handset solutions, which Southern believes may offer many advantages, including greater accuracy, Southern has pursued the following vendors with either Global Positioning Systems (GPS) or Assisted GPS (A-GPS) offerings:

- Motorola -The iDEN system is a proprietary Motorola system, including the handsets used on the system. Motorola is the only iDEN handset vendor at this time. Thus, Southern has regularly and routinely discussed potential E911 solutions with Motorola. From these discussions, Southern has been advised that, at this time, a GPS or A-GPS handset solution will not be available from Motorola in time to meet the deadlines set forth by the Commission. Motorola has communicated this fact in meetings and *ex parte* presentations with the Commission during this proceeding. Motorola is working on an EOTD solution. However, it has advised Southern that this EOTD solution does not meet the FCC's accuracy requirements at this time. Motorola has indicated that a compliant handset may not be available until late 2002 to mid 2003. Given Southern's currently limited options for Phase II solutions, it will continue to actively pursue this option with Motorola.

- Tendler - Southern met with Tendler and observed a product demonstration on a non-iDEN phone. The demo product did show the ability to generate latitude and longitude information; however, the product was not a separate device that could be attached to existing handsets. Instead, the technology would ultimately have to be incorporated into a handset by a handset manufacturer, such as Motorola. As far as Southern is aware, Motorola has no plans to integrate the Tendler technology into the iDEN handsets. Additionally, the solution as designed would require unique computer equipment at the PSAPs in order to receive the location information. Given these serious practical difficulties with this solution and the very high projected per unit cost, Southern has not pursued this solution any further.

- Snaptrack – Snaptrack offers an A-GPS chipset that would be integrated into handsets, along with network hardware that assists in tracking callers, as a Phase II solution. Southern pursued discussions with Snaptrack, and the company appeared receptive initially. Following its acquisition by Qualcomm, Snaptrack indicated that it was pursuing direct discussions with handset vendors and that Southern should deal directly with its handset vendor. Motorola has advised Southern that Snaptrack's solution is not

iDEN-compatible, and consequently will not be made available for use on Southern's network.

- IDC/SiRF – IDC/SiRF provides an A-GPS handset solution for Phase II. Southern pursued initial discussions with this company. Again, given that this solution would ultimately become a part of the handset, further discussions on this technology are ongoing with Motorola as discussed above.

Southern has also reviewed several network-based solutions, which utilize time delay of arrival (TDOA), angle of approach (AOA) and/or RF mapping. To date, Southern has contacted or attempted to contact: SigmaOne, Grayson Wireless, TruePosition, USWireless, CellLOC, and CellTRAX. The results of its efforts are as follows:

- USWireless- According to Southern's information, USWireless has an iDEN-compatible solution. However, Southern has been unsuccessful in its many attempts to arrange an observation of a demonstration of that solution.

- TruePosition- TruePosition informed Southern that it would not pursue an iDEN solution at this time. It also publicly stated in July 2000 that it was not developing an iDEN solution.

- SigmaOne- Southern is trying to confirm earlier information it received from SigmaOne that the vendor did not plan to develop an iDEN-compatible solution for at least another year.

- CellTRAX- Southern has been unsuccessful thus far in obtaining any response to its inquiries from CellTRAX.

- CellLOC- Southern has been unsuccessful thus far in obtaining any response to its inquiries from CellLOC.

- Grayson Wireless- Grayson Wireless has developed an iDEN-compatible solution. Southern observed a demonstration of this solution on Grayson's iDEN test site in mid-September, and the test results appeared positive. Observing this demonstration is only the first step in the evaluation process, which must include testing on Southern's network before any decisions can be reached.

As mentioned, the Grayson Wireless test was the first in a series of tests and evaluations that will need to take place in order to determine whether the Grayson solution will be viable on Southern's network and will meet the accuracy requirements across all of Southern's footprint. Southern is working to schedule tests of the Grayson solution on its network during the first quarter of 2001. Southern expects such testing to last approximately 4-6 weeks and plans to conduct tests in a variety of rural and urban locations. Once the results have been analyzed and verified, Southern will use the data to help determine the viability of the solution.

Testing and Verification

As was the case with the initial Grayson testing, Southern plans to observe and verify all of the tests conducted by E911 solution vendors. To date, as mentioned above, many E911 vendors have not been responsive to Southern's inquiries or have indicated that they are not working on iDEN compatible solutions. However, to the extent a viable solution becomes available Southern intends to implement a testing and evaluation plan suitable for the iDEN architecture. Moreover, once a solution is chosen, Southern will draft a more detailed, solution specific testing and verification plan.

Implementation Details and Schedule

At this time, Southern is unable to provide a detailed implementation schedule for E911 Phase II service as Southern has been unable to obtain all of the information from vendors necessary to make that determination. Until a vendor and solution are chosen, Southern will be unable to commit to a detailed implementation schedule. Southern is committed to continuing to engage in detailed analysis of all potential E911 solutions.

Southern is concerned that many vendors are unwilling to provide commercially feasible iDEN solutions. For this reason, Southern will also need to evaluate solutions being pursued by the other major iDEN carrier, Nextel. In addition, Southern wishes to have the opportunity to seriously evaluate a handset-based solution since this has the potential to offer greater accuracy in the long run. Therefore, Southern will continue to pursue a viable handset solution with its vendor, Motorola. Once Southern is able to make specific implementation plans it will so advise the Commission.

PSAP Interface

In order to transmit the necessary Phase II data to the PSAP, Southern will need to upgrade its current trunking system from its Feature Group D trunks to SS7 trunks. This modification will allow the Phase II information to be transmitted from the Southern network to the E911 selective router and eventually to the PSAP.

Existing Handsets and Location of Non-Compatible Handsets

Until a solution and vendor are chosen, Southern will be unable to commit to a schedule and strategy for the upgrade and/or replacement of existing handsets.

Other Issues

To date Southern has not yet received any Phase II requests from any PSAPs who are able to handle Phase II data.

If you have any questions or concerns regarding this report, please do not hesitate to contact the undersigned.

Very truly yours,

Michael D. Rosenthal
Director of Regulatory Affairs
Southern Communications Services, Inc.

cc: Patrick Forster