

**WRITTEN TESTIMONY**

**Of**

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**Hearing**

**on**

**H.R. 2898, the E911 Implementation Act of 2003**

**Before the  
Subcommittee on Telecommunications and the Internet  
Committee on Energy and Commerce  
United States House of Representatives**

**September 11, 2003  
9:30 a.m.  
2322 Rayburn House Office Building  
Washington, D.C.**

Good morning, Mr. Chairman and Members of the Subcommittee. I welcome this opportunity to appear before you on behalf of the Federal Communications Commission (FCC) to testify on the deployment of Enhanced 911 (E911) wireless services, on this, the second anniversary of that tragic day that imprinted 9-11 in the nation's consciousness and changed its meaning forever.

It was exactly two years ago today that Tom Sugrue, then Chief of the Wireless Bureau, was scheduled to testify before this very subcommittee on the state of E911 deployment. FCC staff, preparing for the hearing, saw the smoke rise from the Pentagon from the window of the FCC building as they listened to news reports about the attacks on the twin towers. There was no Congressional hearing on that day about the roll out of wireless E911. But there was testimony of a different kind about the importance of wireless telecommunications to our nation.

Aboard Flight 93, passengers, communicating by cell phone, learned what the hijackers had in store for them and chose to die a hero's death fighting to protect their fellow Americans. Civilians trapped inside the World Trade Center spoke their last words to loved ones on cell phones that were their only connection to the outside world.

## **I. Introduction**

The September 11, 2001 attacks on our homeland were a wake-up call to many to look more searchingly at issues of homeland security, and, in particular, at the vital role that telecommunications plays in our nation's response to emergencies. Implementation of Enhanced 911 for wireless communications devices is central to that response. But E911 wireless services are inseparably linked to the FCC's work on other public safety issues, including wireline infrastructure, first responder and public safety access to spectrum, interoperability and network security.

Before and since September 11<sup>th</sup>, the Commission has developed policies to secure our nation's telecommunications infrastructure and network reliability, to create analogous emergency location capabilities for wireline and wireless telecommunication services, to balance

the needs of the public safety community and the private sector for access to spectrum. These are all part of our mission to serve the public interest by developing and implementing communications policies to meet the needs of first responders and of our civilian population. Our work is part of a larger picture that involves many Federal agencies, State governments, and every local jurisdiction. Enhanced 911 wireless services are an essential part of the larger, interconnected telecommunications infrastructure that supports homeland security, public safety, and citizen activated emergency response capabilities.

There is an urgent need to recognize this interlocking of interests, to foster cooperation and coordination from the top down and the bottom up, across agencies, between individuals, and among public and private interests, in the greater interest of the public good. Providing telecommunications services to meet our nation's public safety, emergency response, and homeland security needs is not the job of the FCC alone or of any one Federal agency. It involves cooperation and coordination among many Federal, State and local authorities. Moreover, many public and private partnerships will be needed. Only when all of us work together will we be able to bring about the full deployment of enhanced wireless services in the service of the nation's homeland security. Chairman Powell called for a new "Era of Cooperation" on E911 at the FCC's first E911 Coordination Initiative meeting in April. If all stakeholders heed the Chairman's call to action, together we can build this era of cooperation into a "New Era of Accomplishment" for enhanced wireless telecommunications services in every region of the United States.

As this Subcommittee has recognized, the era of accomplishment in which we will achieve the full deployment of enhanced 911 wireless services will require the leadership and vision of the Congress. Indeed, this Subcommittee, through this and its past hearings and exploration of legislative initiatives, has been indispensable in advancing E911. I especially commend Representatives Shimkus and Eshoo and the other members of the Congressional E911 Caucus for their leadership and vision in this crucial area. This hearing is an important opportunity to work on furthering the era of cooperation with regard to one of the most critical public safety matters of today and tomorrow. The leadership of this Congress will be critical to

meeting the E911 challenges facing us, to complete this vital link between first responders and the civilian population, which is an essential part of our homeland security efforts.

## **II. New Developments and Challenges**

The substantial progress that we have made since I spoke to this subcommittee in June is the best demonstration of how the pace of E911 deployment has quickened since the Chairman called for cooperation between stakeholders in April. The data support our belief that our efforts are starting to produce tangible results. In partnership with all the stakeholders – we are making substantial progress in bringing wireless location technology to the American people in the regions in which they live and to which they travel.

### **Deployment Statistics**

- According to the August 1, 2003 Reports, Phase II information is now being provided by at least one wireless carrier in approximately 480 markets to more than 1200 PSAPs, an increase of 50% over the prior quarter.
- For the six nationwide carriers, over 65% of their enabled markets have come on line in the past six months.
- Every nationwide carrier using a handset-based approach is offering at least one compliant handset. Both Sprint and Verizon offer their customers at least 10 location-capable handset models. Sprint alone has sold over 11.6 million such phones.
- According to the NENA's statistics, 10% of PSAPs—643 of 6,121 PSAPs—already have Phase II service, a jump from 299 between February and May of this year, with the numbers steadily growing as carriers and PSAPs gain expertise.
- And right here in our own neighborhood, in Alexandria, Virginia, E911 Phase II service has become a reality. Chairman Powell saw this technology working first hand at an E911 Public Safety Answering Point (PSAP) call center in Alexandria, Virginia. The Chairman spoke with great enthusiasm about the tremendous job Deputy Chief of Police Baker, Lt. Pellegrino, and the center supervisor, Marietta Robinson, did demonstrating how the E911 capabilities functioned to locate callers.

So the bottom line is, E911 is working right here in the Washington area. But this is just the beginning. We will not rest until all consumers of wireless services are assured that their carrier has deployed E911 location technology and that this technology reaches every PSAP, not

just in the Washington, D.C. area, but in every urban, suburban and rural community across the Nation.

### **Remaining Challenges: FCC Actions and Initiatives to Meet Them**

It is clear today that E911 technology works – and can save lives. It is, unfortunately, also clear that when funds earmarked for the deployment of E911 are diverted to other uses because of budgetary pressures or other causes – lives can be lost. Thus, much more remains to be accomplished.

#### ***Experience is the Best Teacher***

I have learned first-hand that when location technology is not available in an emergency, rescue is delayed. I spent several hours stranded in a gondola in Colorado last month, waiting for help to arrive, unable to tell the PSAP that responded to my 911 wireless call my location on the mountainside as strong winds gusted around me. I am happy to say that the competence of the local public safety responders brought help quickly. Luckily, in this instance, I was only inconvenienced.

#### ***Enforcement Actions as Consequences of Non-Compliance***

As an institutional matter, we have learned that our progress requires the use of an occasional stick. The Commission has not hesitated to use its enforcement power when wireless carriers are not justified in delayed deployment. Within the past fifteen months, we have taken a number of actions where carriers have failed to comply, including entering into consent decrees with multiple national carriers who did not adhere to their deployment schedules. In addition to substantial fines, each carrier is now subject to binding deployment schedules with automatic penalties if they fail to comply again.

#### **To recap enforcement actions described in my previous testimony:**

- The Commission entered into consent decrees with AT&T Wireless (June 2002) and Cingular Wireless (May 2002) regarding deployment of E911 over their Time-Division Multiple Access (TDMA) Networks, notwithstanding the fact that both carriers plan to phase out much of their TDMA networks as they transition to the Global System for Mobile Communications (GSM) standard. These consent decrees require AT&T Wireless and Cingular Wireless each to make a \$100,000

voluntary contribution to the U.S. Treasury, to deploy E911 Phase II technology at their TDMA cell sites, and to provide Phase II service in response to PSAP requests by specified benchmark dates. The consent decrees also require the carriers to make automatic penalty payments for failure to comply with deployment benchmarks and to submit periodic reports on the status of their compliance efforts. Both carriers have met their benchmarks to date: AT&T Wireless has deployed Phase II technology to over 2,000 cell sites, with nearly 1,200 of those sites currently providing Phase II service, and Cingular has deployed Phase II technology at over 2,400 cell sites, with Phase II operational in nearly 1,700 of those sites.

- After issuing a Notice of Apparent Liability against AT&T Wireless for apparent E911 violations concerning its GSM network, the Commission and AT&T Wireless entered into a consent decree in October 2002 to address these apparent violations. This decree requires AT&T Wireless to make a \$2 million voluntary contribution to the U.S. Treasury, to deploy E911 Phase II technology at its GSM cell sites and provide Phase II service in response to PSAP requests by specified benchmark dates. The consent decree also requires AT&T to make automatic penalty payments for failure to comply with deployment benchmarks and to submit periodic reports on the status of its compliance efforts. AT&T Wireless has met its benchmarks to date, reporting that it has deployed Phase II technology to 2,000 cell sites on its GSM network.

#### Enforcement Actions Since June Testimony

- On June 12<sup>th</sup>, the Commission adopted an Order approving a consent decree resolving possible violations of the enhanced 911 (E911) Phase II rules by Cingular Wireless LLC (Cingular Wireless). As part of the consent decree, Cingular Wireless has agreed to make a voluntary contribution in the amount of 675,000 to the U.S. Treasury. Cingular Wireless has also committed to a timeline for deployment of its network-based location technology within its Global System for Mobile Communications network (GSM network) and to make automatic payments to the U.S. Treasury should it fail to meet the deployment benchmarks set forth in the consent decree. Cingular Wireless has also agreed to submit Quarterly Reports to the Commission on its progress and compliance with the terms and conditions of the consent decree and the E911 Phase II rules.
- In July, the Commission adopted an Order approving a consent decree resolving possible violations of the enhanced 911 (E911) Phase II rules by T-Mobile USA, Inc. (T-Mobile). As part of the consent decree, T-Mobile has agreed to make a voluntary contribution in the amount of \$1.1 million to the U.S. Treasury. In addition, T-Mobile has committed to a timeline for deployment of its network-based location technology within its Global System for Mobile Communications network and to make automatic payments to the U.S. Treasury should it fail to meet the deployment benchmarks set forth in the consent decree. T-Mobile has

also agreed to submit Quarterly Reports to the Commission on its progress and compliance with the terms and conditions of the consent decree and the E911 Phase II rules.

### **The Hatfield Report: FCC Implementation of Recommendations**

We have taken further steps to implement the recommendations made by Dale Hatfield<sup>1</sup> with regard to the technical implementation issues and challenges associated with E911. In many ways, the “Hatfield Report” has become our guidebook in working through many of these issues. Some of the major issues identified in the Hatfield Report include:

- Wireless carrier implementation issues, such as particular technical and economic challenges in rural areas.
- ILEC cost recovery and technical issues.
- Cost recovery and PSAP funding issues.
- Ongoing need for PSAP education, assistance, and outreach.
- Lack of comprehensive stakeholder coordination.

#### ***Commission Implementation of Hatfield Recommendations through Rulemaking and other Regulatory Action***

In reviewing the Hatfield Report, we identified some regulatory ambiguities and barriers on the FCC’s side of the ledger. To address these issues, the Commission recently:

- Clarified PSAP readiness issues and established a certification process.
- Provided guidance on cost recovery demarcation issues.
- Instituted a rulemaking on how the 911 rules should apply to technologies such as Mobile Satellite Service, telematics services, and emerging voice services and devices.
- Bureau staff also worked on methods to reduce the number of unintentional or harassing wireless 911 calls, a problem that had been of growing concern to public safety organizations because such calls divert scarce PSAP resources. Even without the pressures of such calls, a PSAP’s resources may be challenged by the cuts in funds from

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<sup>1</sup> Mr. Hatfield is currently an independent consultant and Adjunct Professor in the Department of Interdisciplinary Telecommunications at the University of Colorado at Boulder. Between December 2000 and April 2002, Mr. Hatfield served as Chair of the Department. Previously, Mr. Hatfield was the Chief of the Office of Engineering and Technology at the Commission, and immediately prior to that, he served as the Chief Technologist at the Agency.

hard-pressed state and local budgets, an ever increasing number of wireless calls, the demands of mastering the new technologies required to implement enhanced 911 wireless services, and the need to find funding and technical know-how in order to upgrade equipment so that the PSAP is ready to handle location information from multiple carriers using different location technologies.

### ***Implementation of Hatfield Recommendation for Greater Stakeholder Coordination***

One of the key issues that the Hatfield Report identified was the lack of coordination and information flow between and among relevant stakeholders. In response to this problem, in April, the Chairman launched the FCC's E911 Coordination Initiative.

#### The First Meeting of the E911 Coordination Initiative

The first meeting of the Initiative brought together representatives from the federal government, the public safety community, wireless carriers, Local Exchange Carriers (LECs) and other interested stakeholders to address ongoing implementation issues such as Public Safety Answering Point (PSAP) funding, wireless carrier implementation and prioritization, issues relating to LECs, and the challenges faced by rural carriers.

#### The Second Meeting of the E911 Coordination Initiative

The FCC's second meeting of the E911 Coordination Initiative will take place on October 29 and 30. At that session, we will sound the call to action to our colleagues at the state level. There -- for the first time -- we will convene the E911 designees of each of the State Governors and U.S. territories. These leaders will provide a key interface for E911 deployment issues in the states and important points of contact for the vital public education efforts that are essential to successful E911 deployment. We plan to provide resources to Governors' State 911 designees to help them provide leadership and coordinate E911 deployment efforts in their states. We appreciate the work of our partners at the National Governors' Association who have been so integral to this unprecedented effort and to the staff of the Consumer and Intergovernmental Affairs Bureau of the Commission who have worked hard with them on this effort.

Central to this task will be building support for the idea that state funds earmarked for E911 deployment should be used for E911 deployment. Consumers have an expectation that fees appearing on their bills for E911 will be used to further the deployment of these life-saving



technologies, and we must ensure that those expectations are honored. The Second Coordination Initiative will also look at current deployment issues, accuracy challenges, and additional public education efforts.

### ***Rural Deployment Challenges Identified in the Hatfield Report***

Following up on the Hatfield Report's discussion of special technical and economic challenges facing rural carriers, and the issues raised with respect to rural carriers in the rural session of the First Coordination Initiative, we have continued to focus on wireless E911 deployment issues in rural settings, particularly among smaller wireless carriers. These issues are being addressed in the context of a broader bureau-wide effort to examine the multiple wireless issues affecting rural carriers, consumers, and other rural stakeholders. With regard to the rural E911 deployment issues, we have worked with all stakeholders to ensure that information is shared between and among the various interests involved. As you know, we have before us various petitions for relief from certain implementation benchmarks in rural areas. The Commission will decide these issues as quickly as possible, consistent with determining an equitable balance between the public safety community's needs and the technical and commercial hurdles that rural carriers face in deploying location technologies that comply with the Commission's time and accuracy requirements.

We are also taking appropriate steps to ease these burdens wherever possible. The recent memorandum of understanding between the Wireless Telecommunications Bureau and the Rural Utilities Services of the Department of Agriculture should help rural carriers with one of their biggest challenges – funding for necessary infrastructure upgrades necessary for Phase II deployment.

### ***Addressing the Infrastructure and Standards Issues Identified in the Hatfield Report***

#### **E911 Subcommittee to the NRIC**

In addition to the Coordination Initiative, the Chairman has recently announced that, as Dale Hatfield recommended in his report, the Commission is going to establish a technical group to focus on 911 network architecture and technical standards issues. Measuring and improving the accuracy of E911 location information will be a key priority. This group will be a

subcommittee of the Network Reliability and Interoperability Council (NRIC), which will continue to focus on homeland security issues under a new charter. We will begin laying the foundation for these inquiries at the Second Coordination Initiative in October. In January, we will devote the FCC's Technical Advisory Committee meeting to 911 technical issues. I am also pleased to announce that Dale Hatfield has agreed to assist us in all of these efforts.

### Accuracy Issues

We have identified accuracy measurement as an issue that must be effectively resolved in all environments – rural, urban, or some special situation such as a coastal environment, so that all are equitably treated and all consumers are assured of effective location technology in their service area or when they travel outside it. One area of investigation is the method by which the Commission will measure carrier compliance with our accuracy rules. The Emergency Services Interconnection Forum (ESIF) has established a Working Group to examine methods for testing location accuracy. The working group's goal is to develop a set of minimum, practical requirements, that will ensure that individual test methodologies provide consistent, valid, and reproducible results in a variety of environments. The Working Group plans to send its recommendations to the ESIF for review by the full body by the end of November. The Commission intends to monitor ESIF's progress as this effort goes forward and to assess their efforts in our future compliance work. This issue will also be a focus of discussion at the upcoming Coordination Initiative.

### **Chairman Powell's Consumer Outreach Initiative**

Finally the public has a central role to play in making sure that E911 is rolled out in their communities. It is the job of all of us who care deeply about E911 deployment to make sure that when consumers are at the kiosk at the mall, they don't just ask about price, and how to download the latest tune from Fifty Cent as a ring tone. They also need to ask carriers:

- “Do you provide E911 Phase II capability?”
- “How accurate is the E911 capability in this handset?”
- “What is your deployment schedule in my area?”

Wireless is a highly competitive market, and that enables every consumer including you and me to vote with our respective checkbooks. Moreover carriers that have invested substantial resources in deployment schedules that are faster than their rivals should receive the benefits of that investment. Consumers should understand that not all carriers are created E911 equal – and we have a right to know. Our Consumer and Government Affairs Bureau recently issued a consumer advisory to highlight for consumers what questions they should ask when considering wireless service.

Consumers also need to ask whether their state and local government public safety answering points are Phase II capable. Again, if the answer is “no” we all need to ask “why not?” I urge the Congress, the public safety community, and government agencies to enlist consumers as an ally in ensuring that E911 deployment is properly funded and tended to in the political process at all levels. This is a national priority – that deserves a national dialogue about the responsibilities of each stakeholder in making this work.

The Commission will remain committed to nationwide Wireless E911 outreach and education. The FCC will work closely with the Governors’ 911 designees, our Intergovernmental Advisory Committee, public safety organizations, and to enhance our role as an information clearinghouse. The Chairman and his fellow Commissioners will be leading this effort to ensure that consumers have reasonable expectations about E911 and can make informed choices about their cell phone service.

### **III. Conclusion**

To summarize, the Commission is working formally and informally on the three “C”s that we believe are essential to solve E911 deployment: coordination, cooperation, and communication:

- **Coordination:** We have learned that states that have the strongest coordination of E911 issues, have the greatest deployment success. To foster coordination between the Commission and the States, we have identified each Governor’s E911 representative and will be working with them on a number of leadership initiatives.

- **Cooperation:** We have learned that where interests find ways to work cooperatively, even in a competitive environment, problems can be minimized. We are therefore trying to develop cooperation between carriers, vendors, and LECs to spur deployment, minimize time delays and maximize economic efficiency.
- **Communication:** We have learned that when rural carriers communicate early and often with their local PSAPs, they have fewer problems with coordination and communication. We are therefore requiring that any carrier seeking a waiver communicate with the local PSAPs which are affected by the waiver, and discuss not only what the problems are, but their solutions, so that together they can work on a sure path to full compliance.
- There are several other important “c” concepts, such as **consumer awareness** and **cost recovery**. We believe that the consumer can be a strong advocate for deployment, both with carriers and with state and local government. Strong State E911 coordinators and strong consumer interest have been highly successful in improving the cost recovery picture for carriers and ensuring that state funds are not diverted to other purposes.

The full deployment of E911 is the work of many hands. The Commission is only one of many organizations entrusted with a leadership role. The collective progress has been driven by the leadership of many individuals and organizations doing their part to advance E911. First the Congressional E911 Caucus under its superb leadership has done an extraordinary job heading this effort on Capitol Hill. Public Safety leadership organizations have also played an important and creative leadership role. Members of APCO’s Project Locate have worked tirelessly to offer PSAPs assistance with filing requests for Phase II service and to open the lines of communication between PSAPs and wireless carriers. Similarly, NENA’s SWAT effort has helped immeasurably in removing roadblocks to deployment. The tireless efforts of these two public safety organizations are models of dedicated service in the public interest. I must also mention ESIF’s E911 work, and the Department of Transportation’s Wireless E911 Steering Council, which have also brought national leadership and attention to help accelerate deployment. The ESIF and the DOT-NENA partnership are examples of how imaginative partnerships can provide the impetus to progress and innovation.

Working together we can make E911 deployment a reality across this nation. We will not stop until we have rolled out location capability in every corner of our nation. Together, we will keep the roll-out moving towards that goal.

I would like to again thank the Subcommittee for this opportunity to provide information on wireless E911. I look forward to hearing your views and answering any questions you may have.