



U.S. Representative • 9<sup>th</sup> CD, New York • Brooklyn-Queens

## ANTHONY D. WEINER

Report

### AN ASSESSMENT OF WIRELESS 9-1-1 SERVICE IN NEW YORK CITY

Presented by  
Congressman Anthony D. Weiner

Over the past decade, cell phone usage has skyrocketed, choices have exploded, and prices have dropped. However, with this boon to consumers there has been one overriding problem - service has been declining. One obvious downside is the inconvenience of dropped or never completed calls, but cell phone service is not only a matter of convenience, it is a matter of public safety.

Surveys have shown that one in three consumers by their cell phones for safety purposes, and in 2001 more than 57 million Americans placed a 9-1-1 call using their cell phone. That's great news and surely lives have been saved as a result. The downside is that while millions of 9-1-1 calls have been successfully completed using cell phones, millions more never went through at all.

ConsumerReports.org recently reported findings of a survey of 1,880 cell phone users who used their wireless phones to complete 9-1-1 calls in the previous years. They found that 85% had no trouble reaching 9-1-1. At the same time, 15% had trouble connecting, and of those callers who had trouble reaching 9-1-1, 4% never got through at all.

We wanted to take those percentages and translate them into real numbers -- real people who needed to find help during an emergency and couldn't. We applied the 4% incompleteness rate from the ConsumerReports.org to the number of 9-1-1 calls on cell phones nationwide and in New York City and our key findings were as follows:

- An estimated 2.3 million wireless 9-1-1 calls placed nationwide were never completed.
- An estimated 120,000 wireless 9-1-1 calls in New York City never went through. (Based on numbers from the NYPD, which that 12 million 9-1-1 calls were completed in 2002, and 3,019,000 were completed using wireless phones.)

Why aren't these calls going through? It all goes back to those irritating dead spots: hidden holes in cell phone networks from which you can't make a call, no matter how urgent it is. According to data posted on [www.deadzones.com](http://www.deadzones.com), consumers have identified more than 500

dead spots in metro New York for the six major carriers: Sprint, AT & T, T - Mobile, Verizon, Nextel, and Cingular. And this number only reflects the tip of the iceberg when it comes to areas with no service in NYC, as these are dead spots reported by New York consumers on a website that doesn't even advertise.

But that's only the start of the problem. A recent Wireless Consumers Alliance scientific study found that 33 popular cell phone brands aren't equipped with FCC mandated technology that's supposed to make sure every 9-1-1 call goes through (by switching from one carrier to another if the call doesn't go through immediately).

In addition, the FCC's regulations themselves are outdated and need revision. They only apply to phones "capable of operating in an analog mode." However, we are witnessing a dramatic shift away from analog toward digital technology, and two of the six major carriers do not offer an analog safety net.

The good news is we know how to fix the problem. The first thing we should do is pass the Cell Phone Service Disclosure Act, which would require the FCC to collect and report on complaints by carrier. This disclosure would minimize the number of dead spots by encouraging service-based competition. Second, we need to update the FCC's wireless 9-1-1 regulations to account for the shift from analog to digital technologies. Finally, we need to enhance the enforcement capabilities of the FCC to ensure that carriers abide by federal regulations, rather than factor all fines as one of the costs of doing business.

The expansion of cell phone use has been one of the most significant advancements of the past 20 years, but the time has come for us to fully realize the potential of this new technology. The cost of doing not doing is too high, because the cost of doing nothing may be measured in human lives.

#### **Appendix A: Findings of Consumer Reports Survey on Wireless 9-1-1 Service**

No trouble reaching 9-1-1 85%  
Reached 9-1-1 with difficulty on own phone 9%  
Never reached 9-1-1 4%  
Reached 9-1-1 on another cell phone 2%  
(Based on 1,880 responses)

#### **Appendix B: Who Provides an Analog Safety Net**

<b>Company</b>	<b>Digital Format</b>	<b>Analog Backup</b>
AT&T Wireless	TDMA,GSM	Yes
Cingular	TDMA, GSM	Yes
Nextel	IDEN	No
Sprint PCS	CDMA	Yes
T-Mobile	GSM	No
Verizon Wireless	CDMA	Yes

Source: Consumer Reports, 2/03

#### **Appendix C: Definitions**

Analog -- The original type of wireless technology. Although largely supplanted by various digital formats, analog remains the common format supported by cellular providers and is essential for emergency calling, in our view.

CDMA -- Code Division Multiple Access. The digital calling format used by Sprint, Verizon Wireless, and some regional carriers. CDMA is incompatible with other digital formats. It assigns a digital code to each caller to identify that person and keep the calls separate.

Cellular -- Also known as mobile or wireless. It's a call-handling system composed of a network of antennas, each covering a small area or cell. A call from your cellular phone is relayed from antenna to antenna as needed.

Dual band -- Denotes a phone that can operate in the cellular frequency band as well as the PCS band. Dual mode, tri-mode, or multinet network Denotes a phone that can use at least one digital format as well as analog. Tri-mode phones operate digitally in both the cellular and PCS frequency bands.

GSM -- Global System for Mobile Communications. A digital format used widely in Europe and Asia. In the U.S., only T-Mobile and some AT&T and Cingular phones use GSM. It keeps calls separate by assigning a slice of time to each caller.

IDEN -- Integrated Digital Enhanced Network. A digital technology that's similar to, but incompatible with, GSM and TDMA. Used only by Nextel in the U.S.

PCS band -- Personal Communications System band. A portion of the radio spectrum allocated to mobile-phone transmissions. PCS is a different set of frequencies from the cellular band. Sprint and T-Mobile are the largest companies operating solely in the PCS band, although other carriers use it for some customers. Companies using the PCS band are not required to provide analog service, although Sprint provides it via roaming agreements.

TDMA -- Time Division Multiple Access. The digital format used mainly by AT&T Wireless and Cingular. Incompatible with other digital formats, TDMA is similar to GSM.

Source: Consumer Reports 2/03

#### **Appendix D: Text of Federal Regulations on Wireless 9-1-1 Call Processing Procedures**

TITLE 47--TELECOMMUNICATION  
CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION (Continued)

PART 22--PUBLIC MOBILE SERVICES--Table of Contents

Subpart H--Cellular Radiotelephone Service

Sec. 22.921 911 Call Processing Procedures; 911-Only Calling Mode.

All mobile phones manufactured after February 13, 2000, and capable of operating in an analog mode, i.e., in compliance with ``Cellular System Mobile Station--Land Station

Compatibility Specification" (April 1981 Ed.) Office of Engineering and Technology Bulletin No. 53, referenced in Sec. 22.933 must incorporate a special procedure for processing "9-1-1" calls. Such procedure must recognize when a "9-1-1" call is made and, at such time, must override any programming in the mobile unit that determines the handling of a non-911 call and permit the call to be handled by other analog carriers. This special procedure must incorporate any one or more of the 9-1-1 call system selection processes endorsed or approved by the Commission.

[64 Federal Register 34568, June 28, 1999]

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### Reports List