

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairman Carl D. Holmes at 9:08 a.m. on January 13, 2000 in Room 522-S of the Capitol.

All members were present.

Committee staff present: Lynne Holt, Legislative Research Department
Mary Torrence, Revisor of Statutes
Jo Cook, Committee Secretary

Conferees appearing before the committee: Mike Murray, Sprint PCS
Cindy Lash, Legislative Post Audit
Lynne Holt, Legislative Research
Jim Yonally, on behalf of Cellular One

Others attending: See Attached Guest List

Chairman Holmes introduced Tom Day, Legislative Liaison with the Kansas Corporation Commission, who requested that the committee introduce a bill dealing with the siting of electric transmission lines (amending KSA66-1,178 and KSA66-1,179) hearings and notices of hearings. Rep. Sloan moved and Rep. Dahl seconded that the committee introduce this proposed bill. Motion carried.

Rep. Sloan asked for introduction of a committee bill to allow electric customers to purchase alternative generated electricity. Rep. Sloan moved and Rep. McClure seconded the introduction of the bill. Motion carried.

Chairman Holmes introduced Mike Murray, on appeared behalf of Sprint PCS, who provided information from Sprint on their wireless programs (Attachment 1). He also provided information on Sprint's Phase II program (Attachment 2). He explained that this information was quite technical, but the company could provide further information at a later date, should the committee request it.

Cindy Lash, Legislative Post Audit, continued her presentation from the previous day. Ms. Lash provided to the committee copies of the July 1990 Attorney General's Opinion on Emergency Telephone Services, Use of Proceeds (Attachment 3); the November 1992 Attorney General's Opinion on Emergency Telephone Services, Use of Proceeds, County Road Signs (Attachment 4); the September 1999 Attorney General's Opinion on Emergency Telephone Services - Emergency Telephone Tax; Use of Proceeds (Attachment 5); photographs of three county 911 Answering Points (Attachment 6) and the current Kansas Statute on Emergency Telephone Services (Attachment 7).

Ms. Lash then continued with the information provided by Legislative Post Audit on "Reviewing the 911 Emergency Phone Systems in Kansas, Part II: Federal Mandates and Organizational Structure", Question 2- Does the Current Structure of the 911 System Result in Inefficiencies, Higher Costs, or Other Problems for the Citizens of Kansas? (Attachment 8) She stated in Kansas, 911 services are wholly under the control of the city or county, without any central oversight or advisory body to help coordinate the provision of the services. Currently 83 counties have consolidated emergency reporting and dispatching functions, including 911 services, for nearly all local units of government in the county. There are not, however, any answering points in Kansas that serve more than a one county area. Most of the other states reviewed had similar local control structures, although six had some type of statewide advisory/oversight body to assist in planning or provide guidance to local programs.

The report also stated that the current state structure for its 911 system may result in some inefficiencies and higher costs. In the 14 counties that haven't consolidated, the dispatch functions for each answering point has it's own 911 system, equipment and personnel. The overall consensus of the auditors about consolidation is that if they (the local officials) want to consolidate, they can make it work. If they don't want to and it is imposed, it will not work. In order to consolidate, an elected official (sheriff, police chief) will have to give up their control over dispatch, etc. It is also noted that answering the 911 calls may be a small part of what most dispatch centers actually do.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES Room 522-S at 9:08 am on January 13, 2000

In reviewing 911 operations in six counties it was found that tax receipts were typically received on a timely basis and that major purchases were made using competitive bids. Spending in these counties was overseen usually by county commissions. These officials were able to identify specific purchases they planned to make with the 911 tax money reserves they had generated. The report states that 99% of the money spent was for purposes allowed by state law, with lack of clarity in the law leading to the question of whether future spending planned goes beyond uses intended by the Legislature.

Ms. Lash concluded by reiterating the recommendations of the audit committee. They are, again, to explore the possibility of creating an advisory committee for statewide 911 oversight and to have legislative clarity on the statutory limitations on how 911 tax money can be spent.

Ms. Lash then responded to questions from Rep. Sloan, Rep. Long, Rep. Alldritt, Rep. Loyd, Rep. McClure, and Rep. Dahl.

Lynne Holt, Legislative Research, then presented information on the FCC rulings on enhanced wireless 911 services (Attachment 9) and removal of barriers impeding enhanced wireless 911 service (Attachment 10). She also addressed three issues that surfaced, at the federal level, after the Post Audit reports were completed: cost recovery, technology deployment deadlines and liability protection for wireless companies (Attachment 11).

The FCC removed the cost recovery mechanism as a precondition for implementation of E-911 services because they did not consider it necessary to mandate a cost recovery mechanism for carriers that are not subject to rate regulation and the cost recovery mechanism requirement placed delays implementation of Phase I.

The technology deployment deadline was extended to December 31, 2004 from October 1, 2001. This would allow more scheduling flexibility for wireless carriers to implement Phase II.

Liability protection for wireless carriers was added because there was a concern that several factors outside their control could prevent them from processing an E-911 call.

Mr. Jim Yonally, on behalf of Cellular One, provided information on triangulation and GPS (Attachment 12). His information included a definition of each automatic location identification method.

Conferees then responded to questions from Rep. Vining, Rep. Krehbiel and Rep. Long.

The meeting was adjourned at 10:17 a.m.

Next meeting will be Tuesday, January 18, 2000 at 9:00 a.m.

HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: January 13, 2000

NAME	REPRESENTING
Mulse Reedt	AT&T
WALKER HENDRIX	EURB
Don & Miles	KEC
Jolene Bendam	Interpreter
Randy Allen	Kansas Association of Counties
Diane Gage	Sedgwick County
Mike Murray	Sprint
Jennifer Crow	Federico consulting
Susan Bechard	Alltel
Kelley Kuitala	City of Overland Park
KEITH FADDIS	OVERLAND PARK POLICE
Maria Featon	Johnson County
Kim Adams	TILRC
Rhoda Smith	Topeka Independent Living Res. Ctr.
Carolyn Jeffries	Topeka Independent Living Res. Ctr.

HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: January 13, 2000

NAME	REPRESENTING
Tom Day	KCC
Whitney Damon	KC, KS / WYCO
Sandy Braden	Southwestern Bell Wireless
Anthony A. Fardale	ADA coordinator - KS
Narcis Lee	Sedgwick County

Getting Clear Sprint PCS Service Is Simple.

1

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With a variety of shapes, sizes and prices, you can choose a single-band or dual-band phone that's right for you. If you plan to use your phone mostly in major metropolitan areas, a single-band phone may be right for you. If you plan to use your phone between major metropolitan areas, a dual-band phone may be right for you.

2

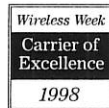
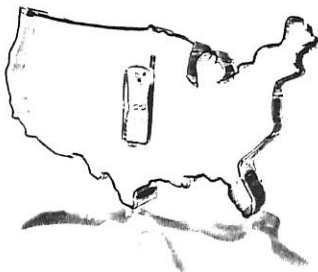
Select your Sprint PCS Service Plan.

Choose the Sprint PCS Service Plan that best suits your needs, keeping in mind you can switch anytime. There are no activation fees, hidden charges or annual contracts required.

3

Call Sprint PCS.

Call us at 1-888-715-4588 with your choices. And then, enjoy the remarkable clarity of Sprint PCS.



SATISFACTION GUARANTEE:

We believe you'll understand right away why Sprint PCS is making wireless communication clear. In fact, we're so convinced that we'll give you a full refund on your phone if you're not satisfied. Simply return your complete, undamaged phone with proof of purchase within 30 days of purchase.

www.sprintpcs.com

Service requires a phone compatible with the Sprint PCS Network. Plans are subject to credit approval. Airtime included in Sprint PCS Free & Clear Plan is good for local and domestic long-distance calling. Airtime included in standard service plans is subject to per-minute long-distance charges. Monthly service charge is non-refundable if service is terminated prior to the end of your billing cycle. Unused plan minutes are not carried forward to the next month. More than 10% of calls must be received or made inside the service area to which each activated phone is assigned. If, during any three consecutive invoice cycles, the activated phone fails to meet that percentage, Sprint PCS reserves the right to reassign the subscriber's service to the appropriate area. Analog roaming requires the use of a dual-band Sprint PCS Phone and is available only where roaming agreements exist with other wireless carriers. Roaming is not available to Prepaid customers. For more specific conditions of Prepaid calling, refer to "Your Clear Guide to Prepaid Calling." Prepaid plans not available in San Diego, Orange County or Hawaii. Sprint PCS Wireless Web may not be available in all Sprint PCS Service Areas. Returns of complete, undamaged Sprint PCS Phone kits will be accepted no later than 30 days after the date of purchase, only with proof of purchase. Refunds will be credited net of any outstanding balance on the customer account associated with the phone. Charges for service, taxes, extra minutes and long distance still apply. Refunds will be credited in the form of check or charge-card credit. For invoicing purposes, calls are rounded up to the next whole minute. Normal airtime charges apply when you call Sprint PCS Voicemail from your Sprint PCS Phone. Sprint PCS Free & Clear Plan may not be used in conjunction with certain other Sprint PCS promotions, discounts and contests. Sprint PCS business plans may vary; please see a business representative. Included minutes and calling times in service plans may vary in some markets. These service plans are subject to change. The Sprint PCS Free & Clear Plan cannot be combined with the Off-Peak/Weekend option or Prepaid plans. Included minutes are not good for calls made while roaming off the Sprint PCS Nationwide Network, whether local or long distance. These local roaming calls are charged at \$0.69 per minute or \$0.39 per minute, depending on specific local-market offers. Domestic long distance calls made while roaming off the Sprint PCS Network will be charged at an additional \$0.25 per minute. Availability of the Sprint PCS Free & Clear Plan is subject to credit approval. Benefits of Sprint PCS Free & Clear Plan continue as long as you are a customer on that plan. Local service in some areas is managed and provided under contract with Sprint PCS by independent affiliates, observing Sprint PCS standards of quality and subscriber convenience, and with access to the Sprint PCS Nationwide Network. ©1999 Sprint Spectrum L.P. All rights reserved. Sprint, Sprint PCS, Sprint PCS Phone and the diamond logo are trademarks of Sprint Communications Company L.P.

For more information, visit a Sprint PCS Center or Select Retailer or call Sprint PCS at 1-800-480-4PCS (4727).

The clear alternative to cellular.

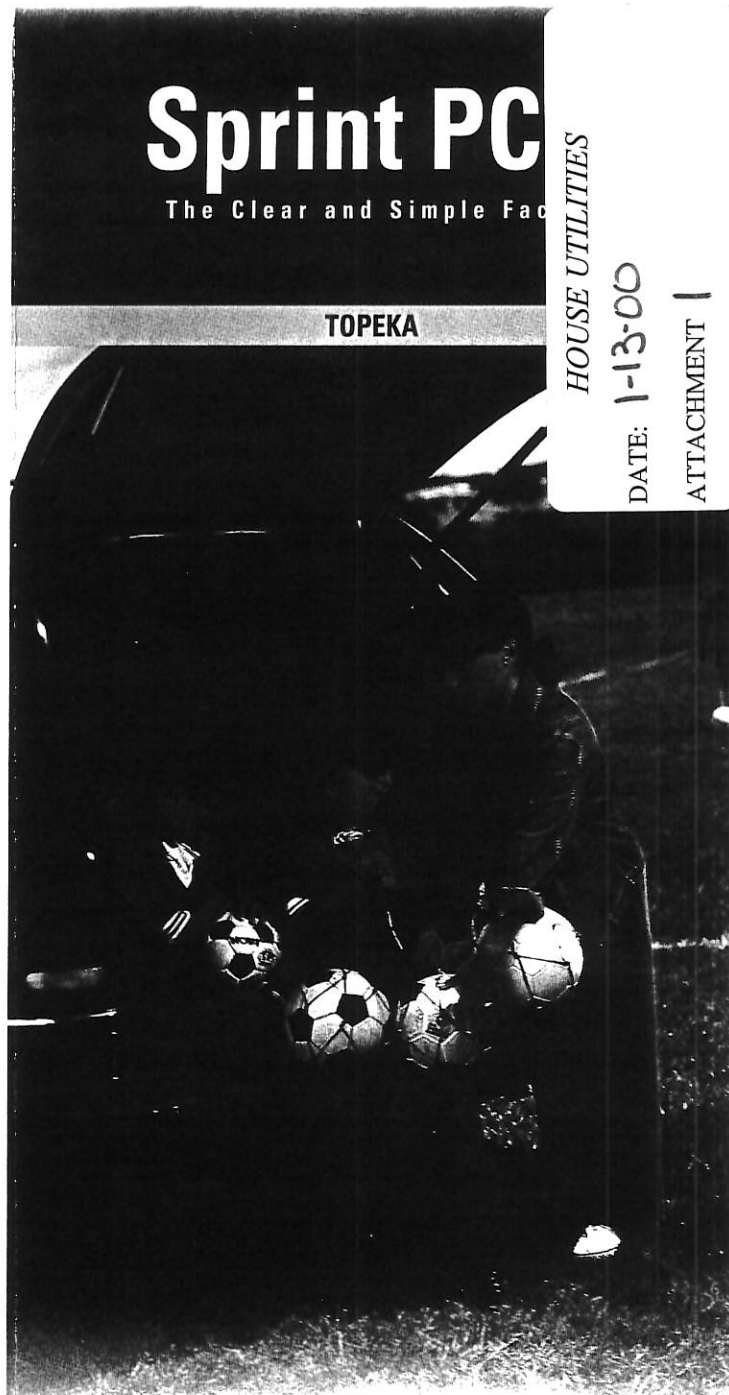


Sprint PCS®

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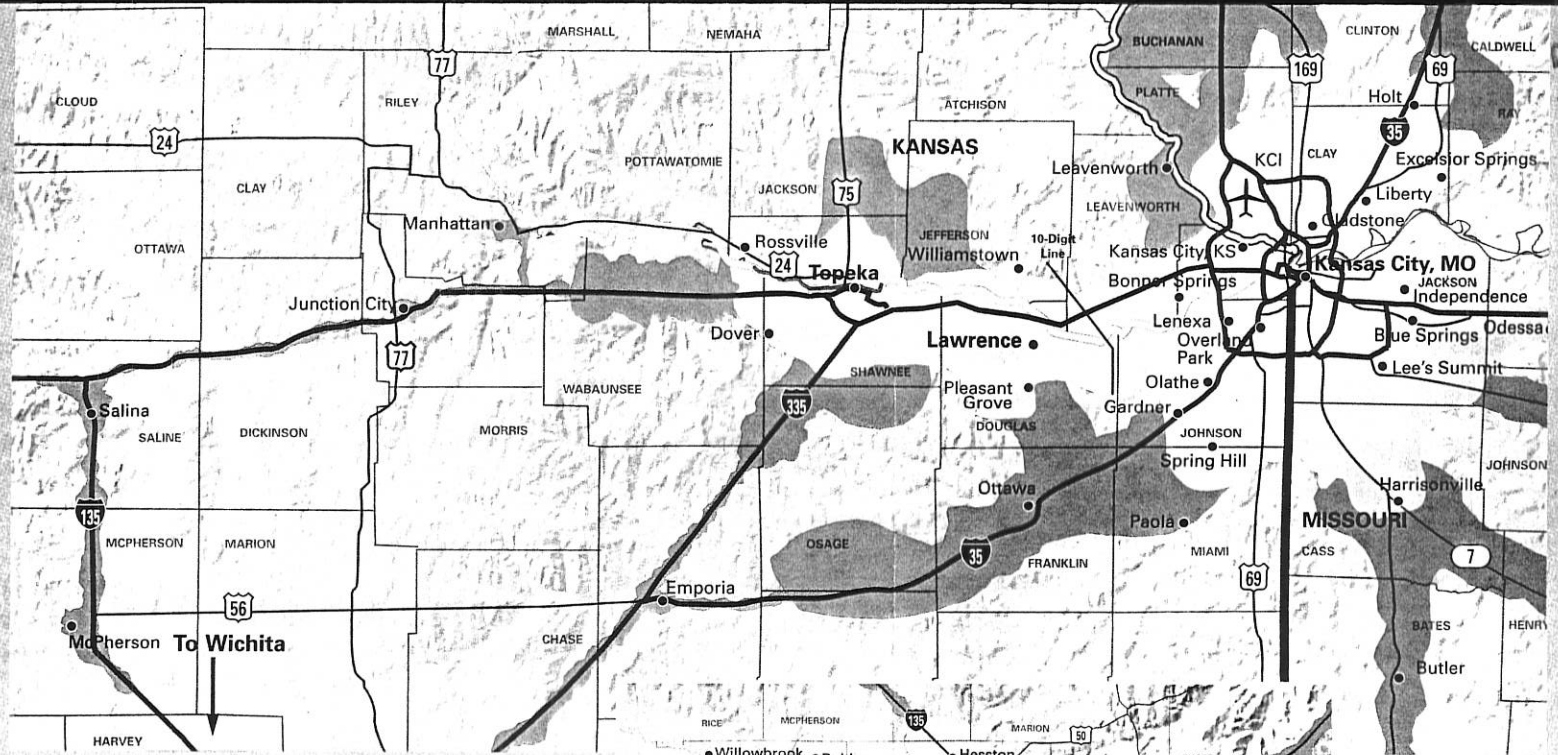
TOPEKA/KANSAS CITY SERVICE AREA

**SPRINT PCS SERVICE
NOT AVAILABLE**

**SPRINT PCS SERVICE ALONG
I-70 CONTINUES EAST INTO ST. LOUIS.**

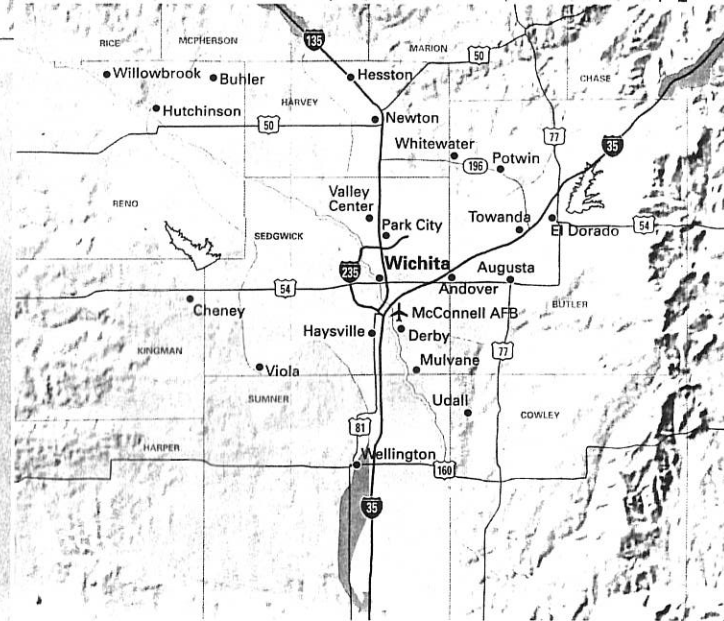
**SPRINT PCS PLANNED
FUTURE SERVICE**

**FUTURE SPRINT PCS SERVICE WILL
CONNECT KANSAS CITY TO TOPEKA
TO WICHITA.**



When you are in any Sprint PCS Service Area, you are using the Sprint PCS Network. You can make calls to or receive calls from anywhere in the United States and Canada using your Sprint PCS Phone.

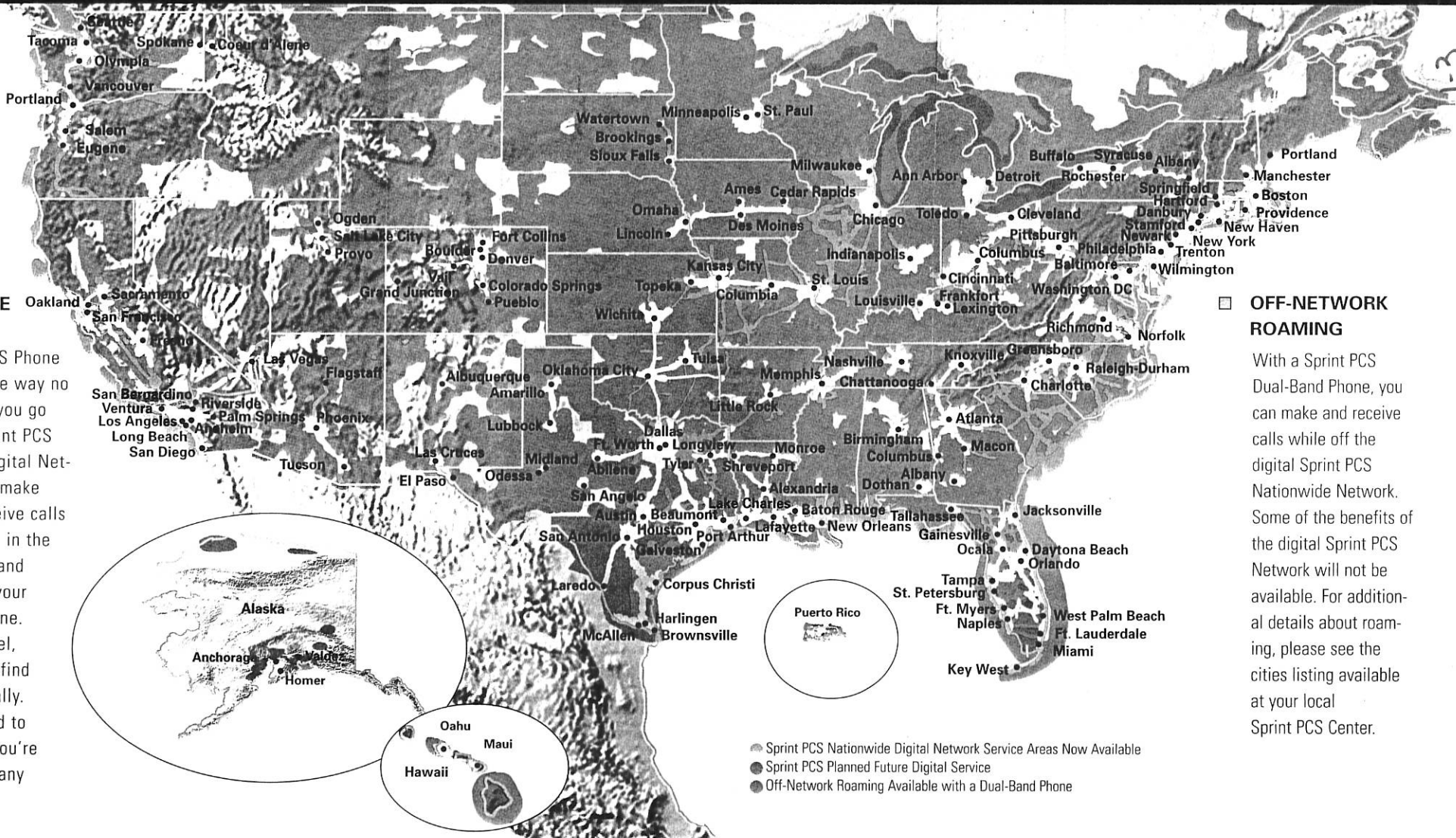
The Sprint PCS Service Area maps are based on computer-generated radio frequency coverage projections. Roaming maps are based on data provided by third-party sources. Planned service areas and planned expansions in service may be subject to alterations. While we endeavor to make maps as accurate as possible as of the date of publication, the information provided is not a guarantee of service availability. Maps updated 9/28/99.



NATIONWIDE SERVICE

DIGITAL SPRINT PCS NATIONWIDE NETWORK

Your Sprint PCS Phone works the same way no matter where you go within the Sprint PCS Nationwide Digital Network. You can make calls to or receive calls from anywhere in the United States and Canada using your Sprint PCS Phone. When you travel, incoming calls find you automatically. There's no need to tell us where you're going or enter any special codes.



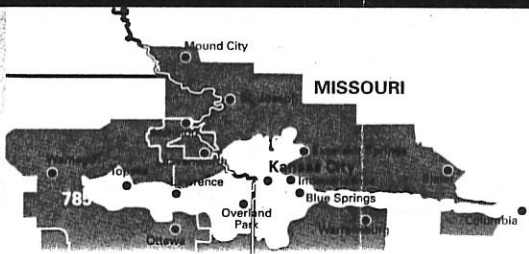
OFF-NETWORK ROAMING

With a Sprint PCS Dual-Band Phone, you can make and receive calls while off the digital Sprint PCS Nationwide Network. Some of the benefits of the digital Sprint PCS Network will not be available. For additional details about roaming, please see the cities listing available at your local Sprint PCS Center.

TOLL-FREE LOCAL CALLING AREA

From the Topeka/Kansas City Service Area, you can call toll-free to parts of 316, 417, 785, 816 and 913 area codes.

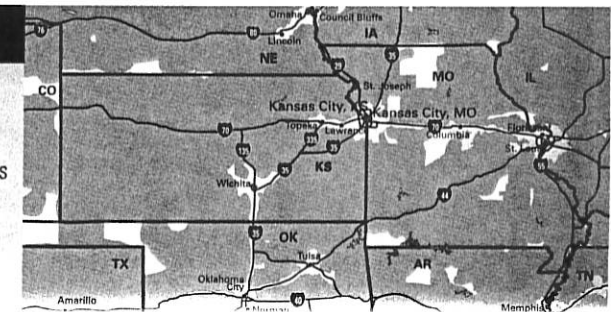
Long-distance charges apply when making calls from the Topeka/Kansas City Service



ROAMING

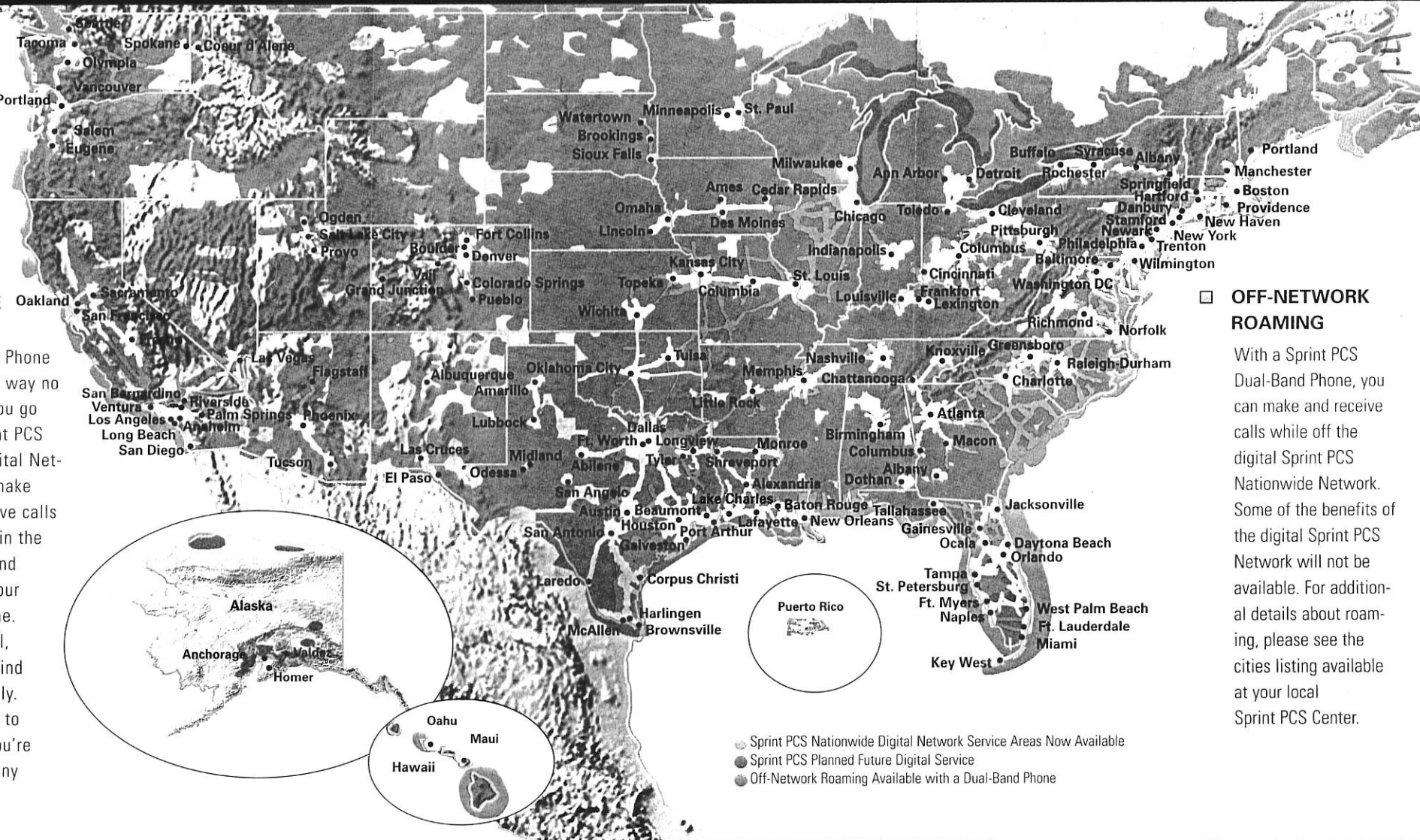
Off-Network Roaming Sprint PCS Coverage

The map at right shows where you can roam when outside the nationwide Sprint PCS Network while using a dual-band phone. For additional details about roaming, including the specific areas where single-band phones may roam, please see the cities listing available at your local Sprint PCS Center or online at www.sprintpcs.com/learn/roaming.html. Topeka customers receive a local roaming rate of 39 cents per minute within Kansas where automatic roaming is available. The national



DIGITAL SPRINT PCS NATIONWIDE NETWORK

Your Sprint PCS Phone works the same way no matter where you go within the Sprint PCS Nationwide Digital Network. You can make calls to or receive calls from anywhere in the United States and Canada using your Sprint PCS Phone. When you travel, incoming calls find you automatically. There's no need to tell us where you're going or enter any special codes.



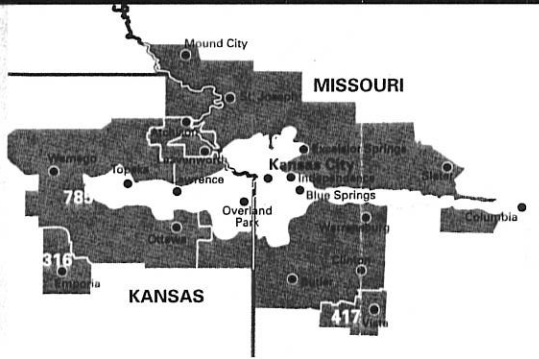
OFF-NETWORK ROAMING

With a Sprint PCS Dual-Band Phone, you can make and receive calls while off the digital Sprint PCS Nationwide Network. Some of the benefits of the digital Sprint PCS Network will not be available. For additional details about roaming, please see the cities listing available at your local Sprint PCS Center.

TOLL-FREE LOCAL CALLING AREA ROAMING

From the Topeka/Kansas City Service Area, you can call toll-free to parts of 316, 417, 785, 816 and 913 area codes.

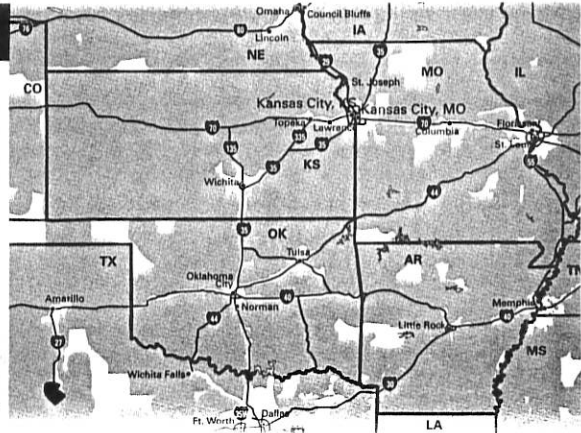
Long-distance charges apply when making calls from the Topeka/Kansas City Service Area to outside the Topeka/Kansas City Local Calling Area.



Off-Network Roaming Sprint PCS Coverage

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Digital Off-Network Roaming Available with any Sprint PCS Phone



5-1

Sprint PCS. The Clear Alternative to Cellular.SM

Sprint PCS built the only all-digital, all-PCS nationwide network from the ground up for clearer calls, serving more than 280 major metropolitan areas. So no matter where you're calling from on our nationwide network, you'll get sound quality comparable to that of your home phone. And, thanks to the most advanced PCS digital technology, Sprint PCS offers improved privacy over conventional analog cellular networks, protecting your calls from being overheard and greatly reducing the risk of phone number cloning.

Consistent Service.

Because our nationwide network uses a single technology, you can count on clear service that works the same way – anytime, anywhere on our nationwide network.

Predictable Costs.

Whether you're calling from Dallas, New York, San Francisco or anywhere else on our digital nationwide network, you won't pay roaming charges. Choose a Sprint PCS Free & Clear Plan and you also get free domestic long-distance calling.

Remarkable Value.

Features like Call Waiting, Caller ID and Three-Way Calling are included with every service plan. Options like Sprint PCS Add-a-PhoneSM, the Equipment Replacement Program and Sprint PCS Wireless Web MessagingSM can be added to meet your specific needs.

Clear Invoicing.

In addition to clear wireless service, Sprint PCS also provides clear monthly statements that make it easy to track your wireless calls. You'll find that you're not charged for unanswered calls or busy signals.

\$29.99 per month **\$49.99** per month **\$69.99** per month **\$99.99** per month **\$149.99** per month **\$16.99** per month **\$29.99** per month **\$49.99** per month **\$99.99** per month

	SPRINT PCS FREE & CLEAR PLAN					STANDARD SERVICE PLAN			
MINUTES INCLUDED	120	400	600	1000	1500	30	150	300	1500
EACH ADDITIONAL MINUTE	35¢	30¢	25¢	25¢	25¢	37¢	26¢	23¢	10¢
LONG DISTANCE (DOMESTIC)	FREE	FREE	FREE	FREE	FREE	15¢ per minute	15¢ per minute	15¢ per minute	15¢ per minute
VOICEMAIL WITH NUMERIC PAGING	•	•	•	•	•	\$4.99 per month	•	•	•
FIRST INCOMING MINUTE FREE	•	•	•	•	•	N/A	•	•	•
CALLER ID CALL WAITING THREE-WAY CALLING	•	•	•	•	•	•	•	•	•
CALL FORWARDING	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute	10¢ per minute

OPTIONS AVAILABLE FOR PURCHASE

OFF-PEAK OPTION Add up to 500 off-peak minutes per month for \$4.99. Off-peak times: M–Th 8pm–7am, F 7pm–M 7am.	•	•	•	•	•	•	•	•	•
SPRINT PCS ADD-A-PHONESM Allows a second user with a separate Sprint PCS Phone Number to share the minutes on one service plan. \$14.99 per month.	•	•	•	•	•	•	•	•	•
EQUIPMENT REPLACEMENT Protect your Sprint PCS Phone SM and selected accessories from loss, theft and damage. Per-claim deductible applies. \$3.25 per month.	•	•	•	•	•	•	•	•	•
SPRINT PCS WIRELESS WEB MESSAGINGSM Receive wireless web messages of up to 100 characters on your Sprint PCS Phone \$1.99 for 30 messages (25¢ each additional message), or \$9.99 for 200 messages (10¢ each additional message).	•	•	•	•	•	•	•	•	•

Sprint PCS Prepaid Service Plan: Sprint PCS also offers a Prepaid service plan. See in-store brochure for details.



Product Management & Development
4900 Main, 5th Floor
Kansas City, MO 64112
Phone: 816-559-1573
Fax: 816-559-6923

Fax

To: Mike Murray	From: Susan Sherwood, Product Manager 911
Fax: 785-234-6420	Pages: 4 (Including cover sheet)
Phone: 785-232-3826	Date: 01/12/00
Re: Phase II info	CC:

Urgent **For Review** **Please Comment** **Please Reply** **Please Recycle**

● **Comments:**

HOUSE UTILITIES

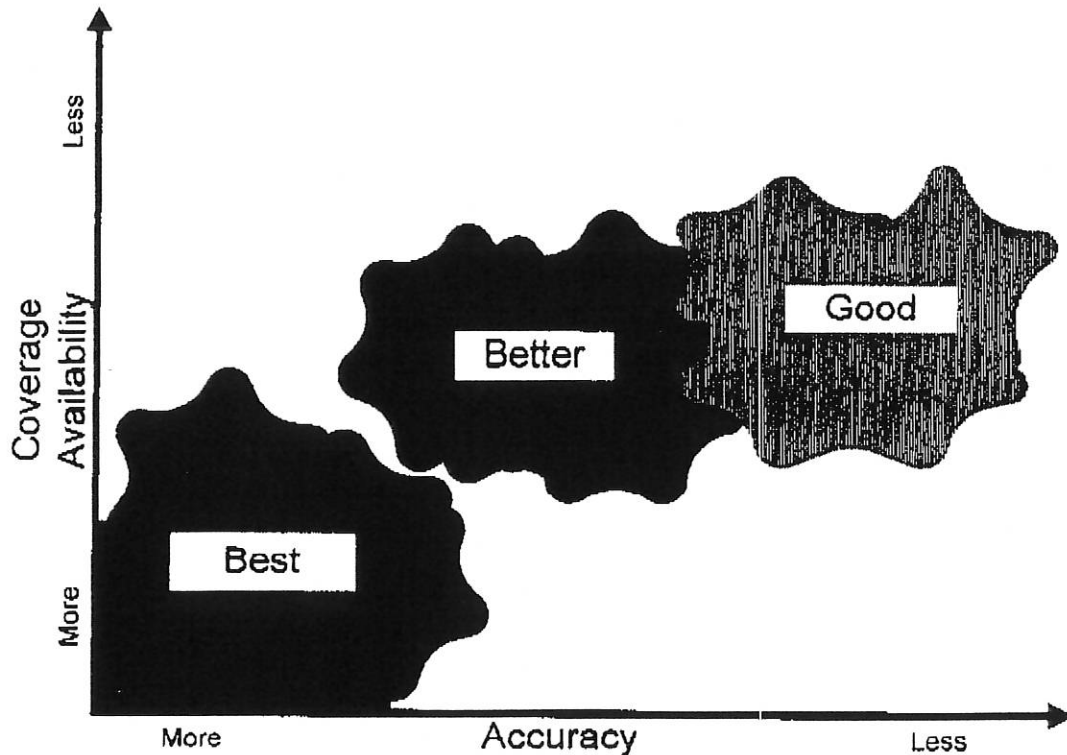
DATE: 1-13-00

ATTACHMENT 2

FCC Update on Air Interface Standards and CDMA Location Mechanisms

The standard that appears to be furthest developed is TIA's PN-4535, which was sent to all TIA members for a 30-day ballot period on August 20, 1999. Ballot comments are due to be resolved by October, 1999, enabling publication of an IS-4535 standard well before the end of 1999. PN-4535 is an air interface standard that supports various flavors of handset-based location technology for IS-95 and IS-2000 CDMA. A corresponding AMPS standard for dual mode phones is also in development, and scheduled for publication by the end of 1999. This AMPS standard, which is under development by a task group of TIA's TR45.1 committee, will provide the air interface messaging needed to support analog-mode operations of GPS and assisted GPS handsets. It is intended to take advantage of the capabilities required for PN-4535 compliant handsets and extend them to provide best of class AMPS capability. Several technical configurations are supported by PN-4535, notably Aided-GPS, standalone (autonomous) GPS, and Advanced Forward Link Trilateration (AFLT). In lieu of a complex matrix of all technical measurement parameters characterizing the performance of these configurations, Table 1 presents each of the configurations and characterizes them simply in a Good, Better, Best scale focused on the salient characteristic of accuracy. Note that accuracy is inevitably somewhat linked to coverage: for example, a system that cannot cover the most challenging environments will report better overall accuracy because it operated primarily under more benign conditions than a system having ubiquitous coverage.

With the implementation of a 4535-compliant Position Determining Equipment, two other measurement approaches become feasible, so they are also reflected in Table 2. These can be called Forward Link Trilateration (FLT) and Round Trip Delay (RTD). A further analysis explores the application of these location modes in a series of 911 calling scenarios and summarizes the results in Table 3.



The Scale

For the sake of analysis of the relationships between the technologies, a highly simplified scale is adopted. On this "Good, Better, Best" scale, both the accuracy and availability attributes are represented. "Good"

represents accuracy better than cell/sector. "Better" means performance meeting or approaching phase 2 criteria. The title "Best" means performance at high accuracy and availability, better than the phase 2 criteria, and including the 3 dimensions capability as suggesting in the Proposed Further Rulemaking.

Table 1 - Simplified Performance Scale for Location Technologies

Performance	Description
Good	Suitable for a Safety Net, accuracy better than phase 1 (cell and sector)
Better	Approaching or meeting phase 2 criteria
Best	Approaching or meeting Proposed Further Rulemaking criteria

Performance Assessment

- Aided-GPS is the highest performing level of position service specified in PN-4535. Network elements aid the handset in signal acquisition and resolve all available ranging signals and best available correction information to produce a timely precision location. This is also sometimes referred to as Wireless Assisted GPS (AIDED-GPS).
- Standalone (autonomous) GPS is a mode supported by PN-4535. An external GPS may communicate location to the network using the standard messaging mechanism. High accuracy is provided when differential corrections are applied by the network, but coverage is not as good as an Aided-GPS system.
- Advanced Forward Link Trilateration (AFLT) is a mode supported by PN-4535. Only CDMA radio signals are used as ranging elements. The standard provides advanced mechanisms for acquiring multiple signals and messaging to report them with maximum accuracy. The network converts them to a position. While AFLT alone might not have emerged as a technology of choice, PN4535 requires AFLT messaging and combinations of AFLT within Aided-GPS deployments have proven valuable. AFLT requires no additional handset hardware to implement, so products already on manufacturers' road-maps could conceivably offer this capability sooner and more broadly than Aided-GPS handsets, which require hardware design cycles. For these reasons, AFLT will likely be deployed everywhere Aided-GPS is deployed, and it appears carriers could cost-effectively begin to deploy AFLT before Aided-GPS deploys completely.
- Forward Link Trilateration (FLT) is a mode available to CDMA carriers. Like AFLT, it uses CDMA radio signals for ranging, but uses only available 'native IS-95' messages (not new PN-4535 messaging). This FLT mechanism is thus available to legacy handset units, but has limitations in the number of signals that can be acquired and the accuracy with which they can be reported.
- Round Trip Delay (RTD) may be used as a byproduct of PN-4535 to locate all legacy and roamer handsets with accuracy suitable for a Safety Net.

Details of the technologies presented are beyond the scope of this document, but could prove important in deployment decisions. For example, RTD alone is quite limited in accuracy, but related enhancements can substantially improve RTD as a Safety Net. Whether such enhancements prove cost-effective depends on industry movement in deploying the array of technologies summarized here.

Table 2 - Assessment of Performance of Location Technologies Using GPS Signals and CDMA Signals

Available Technology	Sources	Performance
GPS in handset assisted by network (Aided-GPS)	GPS, CDMA	Best
External (autonomous) GPS added to a handset	GPS	Best
Advanced Forward Link Trilateration (AFLT)	CDMA	Better
Forward Link Trilateration (FLT)	CDMA	Good
Round Trip Delay (RTD)	CDMA	Good

Scenarios

To understand the applicability of the various location technologies described in this paper, it is useful to explore a number of scenarios where a handset with particular characteristics is being served by a network with particular characteristics. The following scenarios have been judged as 'of interest', and do not necessarily represent an exhaustive set.

- Caller has legacy CDMA handset on CDMA network with an Aided-GPS solution: this scenario applies to a customer of the operating network or to a caller roaming onto the operating network. The result is that the 911 call goes through with phase 1 accuracy. A Safety Net characterized in this paper as having Good performance may be available.
- Caller has AFLT handset on CDMA network with an Aided GPS solution: this scenario applies to a customer of the operating network or to a caller roaming onto the operating network. The result is that the 911 call gets performance approaching phase 2 accuracy and coverage, characterized as "Better".
- Caller has AFLT dual-mode handset on AMPS network: this scenario applies to a customer of the operating network or to a caller roaming onto the operating network. AFLT capability in the handset adds no value to AMPS location process. Location is performed by the AMPS network location technology, which is likely affected by coverage issues. Because of these limitations, this capability is characterized as no better than "Good".
- Caller has Aided-GPS handset on CDMA network with an Aided GPS solution: this scenario applies to a customer of the operating network or to a caller roaming onto the operating network from a similar network. The location is characterized as "Best" for both accuracy and overall coverage.
- Caller has Aided-GPS handset on AMPS network with an Aided GPS: this scenario applies to a customer of the operating network or to a caller roaming onto the operating network. The result is superior accuracy with a lower coverage component, characterized as "Best" in this analysis.
- Caller has new handset on CDMA network with an Aided GPS solution but home carrier has network solution: this scenario requires some careful analysis. At some point, new handsets will be no more expensive to order with a location feature than without it. This situation occurred for example, with Short Message Service (SMS), where handsets were delivered to the marketplace with SMS capability even for networks not supporting SMS. When this is the case, the roamer onto a CDMA network with an Aided GPS solution will have at least AFLT performance (Better) and possibly will achieve Aided-GPS performance (Best).
- Caller roams onto a CDMA network: this scenario covers the case that not all CDMA carriers take the same technology approach. In this case, the caller is located to the limits of the solution deployed by the network. While this may offer very good performance in some regions, coverage issues are expected to limit overall performance to "Good" level.



STATE OF KANSAS

OFFICE OF THE ATTORNEY GENERAL

2ND FLOOR, KANSAS JUDICIAL CENTER, TOPEKA 66612-1597

ROBERT T. STEPHAN
ATTORNEY GENERAL

July 25, 1990

MAIN PHONE (913) 296-2215
CONSUMER PROTECTION: 296-3751
TELECOPIER: 296-6296ATTORNEY GENERAL OPINION NO. 90- 87John B. Klenda
McPherson County Counselor
Karstetter & Klenda
500 E. Main, P.O. Box 225
Marion, Kansas 66861-0225Re: Cities and Municipalities -- Emergency Telephone
Services -- Emergency Telephone Tax; Use of ProceedsSynopsis: Equipment used to receive and record emergency
calls, or used to relay or dispatch emergency
information to response units may be purchased with
funds raised pursuant to K.S.A. 1989 Supp.
12-5304. Items such as office furniture or
equipment which do not interact with the system as
a whole and which do not directly contribute to the
common purpose of the 911 system may not be
purchased with such funds. Cited herein: K.S.A.
12-5301; 12-5302, as amended by L. 1990, ch. 78,
§ 1; K.S.A. 1989 Supp. 12-5304.

* * *

Dear Mr. Klenda:

As county counselor for McPherson County you request our
opinion concerning the types of expenditures for which
emergency telephone tax funds may be used pursuant to K.S.A.
12-5301 et seq. Specifically, you ask whether the tax
funds may be used to purchase the following items: telephone
lines and hardware; 911 monitors and printers; three-station
console; base station and repeaters; antennas and

HOUSE UTILITIES

DATE: 1-13-00

ATTACHMENT 3

John B. Klenda
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installation; pagers for response units; mobile radios for response units; recording equipment; and office furniture and equipment.

K.S.A. 1989 Supp. 12-5304(b) sets forth the permissible uses of the emergency telephone moneys:

"Funds collected from tax imposed pursuant to K.S.A. 12-5302, and amendments thereto, shall be spent solely to pay for (1) the monthly recurring charges billed by the service supplier for the emergency telephone service, (2) initial installation, service establishment, nonrecurring startup charges billed by the service supplier for the emergency telephone service, (3) charges for capital improvements and equipment or other physical enhancements to the emergency telephone system, or (4) any combination thereof." (Emphasis added).

The spending authority granted by this statute appears to be fairly broad. Tax funds may be used to pay for monthly recurring charges, installation charges, service establishment charges, and nonrecurring startup charges billed by the service supplier, as well as capital improvements, equipment and other physical enhancements, which may be purchased from vendors other than the service supplier. Many of the items you wish to purchase from these funds may fit the description of equipment or physical enhancement set forth in K.S.A. 1989 Supp. 12-5304(b)(3). The primary issue is therefore whether these purchases will be used "for the emergency telephone service" or for improvements "to the emergency telephone system."

K.S.A. 12-5301(a) defines "emergency telephone service" as:

"a telephone system utilizing a single three digit number '911' for reporting police, fire, medical or other emergency situations." (Emphasis added).

The statute does not define the term "emergency telephone system", nor the term "telephone system". Such definitions would appear to be crucial to a proper interpretation of the statute.

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When the meaning of a statute is unclear or ambiguous, the rules of statutory construction must be applied. One such rule is that words and phrases should be construed according to their context, and words in common use should be given their natural and ordinary meaning. J.A. Tobin Const. Co., Inc. v. Kemp, 239 Kan. 430 (1986). To determine the natural and ordinary meaning of the terms "telephone system" and "emergency telephone system", it is helpful to consider standard dictionary definitions. Webster's Third New International Dictionary (1986) defines "system" as:

"a complex unity formed of many often diverse parts subject to a common plan or serving a common purpose; an aggregation or assemblage of objects joined in regular interaction or interdependence; a set of units combined . . . to form an integral, organic or organized whole; . . . a group of devices or artificial objects forming a network or used for a common purpose. . . ."
(Emphasis added).

When this definition is combined with the definition of "emergency telephone service" contained in the statute, the meaning of the terms "telephone system" and "emergency telephone system" becomes a little clearer. The terms contemplate a network or aggregation of parts joined in regular interaction to form an integral or organized whole serving a common purpose. In this case, the common purpose is to provide a means of reporting emergency situations by using a single three-digit telephone number ("911").

In applying this interpretation to the items listed above, the primary questions appear to be whether the items to be purchased constitute part of a network or organized whole, and if so, whether they contribute to the common purpose of providing a "911" emergency telephone number. Several of the items clearly satisfy both of these tests. The actual telephone lines and hardware, 911 monitors and printers, three-station console and recording equipment are all linked together electronically and have regular interaction with one another. Moreover, they are items necessary to receive and record emergency telephone calls at a central location. Office furniture and equipment, on the other hand, fails to satisfy either of the tests. It does not interact regularly with the other components of the system, nor does it

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contribute in any meaningful sense to the common purpose of the system.

The remaining items present a less clear-cut case. The base station and repeaters, antennas, pagers and mobile radios all interact regularly with the rest of the system. However, these items are used not to receive and record emergency telephone calls, but rather, to relay or dispatch the information from those calls to appropriate response units (i.e. police, fire, medical, etc.). It is not apparent from the face of the statute whether the legislature intended this "dispatching" function to be included within the scope of the emergency telephone system. The purpose of the system is to allow emergency situations to be reported by dialing a "911" telephone number. Unfortunately, the statute does not define the term "report." We must therefore determine if the legislature intended the tax funds to cover only the components of the "system" used to receive emergency telephone calls, or if it also intended to cover the components used to relay information to emergency response units.

To answer this question, it is necessary to consider the legislative history of the statute. When K.S.A. 12-5304(b) was originally enacted in 1980, the statute limited emergency telephone tax expenditures to payment of "the monthly recurring charges billed by the service supplier." L. 1980, ch. 179, § 4(b). In 1984, the legislature broadened the statute to allow expenditures not only for the monthly recurring charges, but also for initial installation, service establishment and nonrecurring startup charges, and for capital improvements and enhancements to the system billed by the service supplier. L. 1984, ch. 79, § 1(b). The minutes of the 1984 Senate Transportation and Utilities Committee show that this amendment was intended to remove most of the restrictions on local governments' use of the tax funds, with the exception that the funds could not be used to pay for personnel costs and could only be used to purchase items directly from the service supplier. The amendment was drafted by officials of Sedgwick county and its service supplier in order to allow the county to purchase a "computer aided dispatch system" which would significantly increase emergency response time. Senate Comm. on Transportation and Utilities, Minutes of March 27, 1984.

In 1988, the legislature amended the statute to its current form by adding "equipment" to the list of permitted expenditures, by modifying the word "enhancements" to read "other physical enhancements", and by removing the requirement

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that "capital improvements, equipment and other physical enhancements" be purchased from the service supplier. L. 1988, ch. 81, § 1(b). Once again, legislative committee minutes show that the purpose of the amendment was to give local governments greater freedom in spending the tax funds. Sedgwick county sought the amendment in order to obtain the "computer aided dispatch system" mentioned above, since this equipment was no longer available directly from the service supplier. Senate Comm. on Transportation and Utilities, Minutes of February 4, 1988; House Comm. on Local Govt., Minutes of March 23, 1988.

This legislative history is significant in two respects. First, it shows that the legislature has steadily increased the discretion of local governments in spending emergency telephone tax funds. Second, it shows that the legislature specifically intended to allow the purchase of a "computer aided dispatch system" from an entity other than the service supplier. Based on these observations, we believe other "dispatch" equipment, such as base stations, repeaters and antennas is also within the intended meaning of "emergency telephone system" and may be purchased with emergency telephone tax funds. Like the "computer aided dispatch system" mentioned above, these items are linked electronically to the other components of the system and comprise part of the central base station where calls are received and disseminated to other units.

A final question arises with regard to the pagers and mobile radios included in your list. Although these items can be considered part of the dispatch function of the system, and they are needed to receive information relayed to response units from the base station, they differ from the dispatch-related equipment mentioned above in that they are physically separated from the rest of the system and are not located at the central base station. An issue becomes whether these items are sufficiently integrated with the other components so as to be considered part of the emergency telephone system.

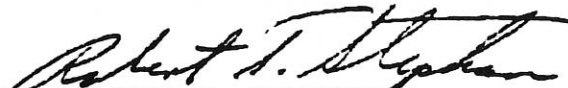
Neither the language of the statute nor the legislative history speaks to this issue. However, it is our opinion that these items may be purchased with emergency telephone tax funds. The common meaning of the term "emergency telephone system" would seem to include any item which has regular interaction with the other components of the system and which contributes to the common purpose of the system. Our review of legislative history has convinced us that relaying


John B. Klenda
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information from the base station to emergency response units is part of the common purpose of the system. Pagers and mobile radios may be necessary in order to maintain communication with the base station and receive this information. Therefore, a strong argument can be made that these items are as much a part of the overall emergency telephone system as the dispatch equipment housed at the base station. Furthermore, there is nothing in the language of the statute or the legislative history to suggest that the legislature intended to prohibit the purchase of such items, or to limit use of funds to situations wherein equipment is physically linked to the system.

We conclude that equipment used to receive and record "911" emergency calls, such as telephone lines and hardware, 911 monitors and printers, three-station consoles and recording equipment is within the meaning of "emergency telephone system" intended by the legislature. Therefore, these items may be purchased with emergency telephone tax funds under K.S.A. 1989 Supp. 12-5304(b). Items used to relay or dispatch emergency information to response units, such as computer aided dispatch systems, base stations and repeaters, antennas, pagers and mobile radios are also within the intended scope of the term "emergency telephone system" and may be purchased with the funds, if those items interact with the system as a whole and contribute directly to the common purpose of the system. Such items as office furniture and equipment are clearly not part of the emergency telephone system and may not be purchased with the tax funds.

Very truly yours,


ROBERT T. STEPHAN
ATTORNEY GENERAL OF KANSAS


Theresa Marcel Nuckolls
Assistant Attorney General

RTS:JLM:TMN:bas



STATE OF KANSAS

OFFICE OF THE ATTORNEY GENERAL

2ND FLOOR, KANSAS JUDICIAL CENTER, TOPEKA 66612-1597

ROBERT T. STEPHAN
ATTORNEY GENERAL

November 10, 1992

MAIN PHONE: (913) 296-2215
CONSUMER PROTECTION: 296-3751
TELECOPIER: 296-6296ATTORNEY GENERAL OPINION NO. 92-144Kevin Mitchelson
Crawford County Counselor
Fourth & Broadway
P.O. Box 610
Pittsburg, Kansas 66762Re: Cities and Municipalities -- Emergency Telephone
Services -- Use of Proceeds; County Road Signs

Synopsis: Although county road signs would be beneficial in locating the address of the caller or person in need, we do not believe these signs sufficiently interact with the components of the emergency response system, and therefore may not be paid for from taxes levied pursuant to K.S.A. 12-5301 and 12-5304. Cited herein: K.S.A. 12-5301; 12-5304.

Dear Mr. Mitchelson:

As Crawford county counselor, you request our opinion as to whether emergency telephone tax funds levied and collected pursuant to K.S.A. 12-5301 and 12-5304 can be used to pay for signs to mark and identify county roads. The board of county commissioners of Crawford county would like to use the funds to erect signs to mark county roads, believing that road signs "contribute to the common purpose of implementing the [emergency response] system."

K.S.A. 12-5304 states that proceeds from the emergency telephone tax may be used as follows:

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"solely to pay for (1) the monthly recurring charges billed by the service supplier for the emergency telephone service, (2) initial installation, service establishment, nonrecurring startup charges billed by the service supplier for the emergency telephone service, (3) charges for capital improvements and equipment or other physical enhancements to the emergency telephone system, or (4) any combination thereof."

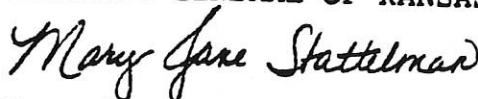
In Attorney General Opinion No. 90-87 we analyzed K.S.A. 12-5304(b) and determined that the funds could be used for "any item which has regular interaction with the other components of the system and which contributes to the common purpose of the system." (Emphasis added). The opinion went on to allow expenditures for telephone lines and hardware, 911 monitors and printers, three-station consoles and recording equipment, computer aided dispatch systems, base stations and repeaters, antennas, pagers, and mobile radios. However, items such as office furniture and equipment were deemed not to "interact with the system as a whole and contribute directly to the common purpose of the system."

Based on this rationale, we opine that although county road signs would be beneficial in locating the address of the caller or person in need, we do not believe these signs sufficiently interact with the components of the system, and therefore may not be paid for from taxes levied pursuant to K.S.A. 12-5301 and 12-5304.

Very truly yours,



ROBERT T. STEPHAN
ATTORNEY GENERAL OF KANSAS



Mary Jane Stattelmann
Assistant Attorney General

RTS:JLM:MJS:bas



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Co./Dept.	
Phone #	
Fax #	

State of Kansas

Office of the Attorney General

301 S.W. 10th Avenue, Topeka 66612-1597

CARLA J. STOVALL
ATTORNEY GENERAL

September 2, 1999

MAIN PHONE: (785) 296-2215
FAX: 296-6296
TTY: 291-3767

ATTORNEY GENERAL OPINION NO. 99- 40

William A. Taylor, III
Cowley County Counselor
P.O. Box 731
Winfield, Kansas 67156

Re: Cities and Municipalities--Emergency Telephone Services--Emergency Telephone Tax; Use of Proceeds

Synopsis: Proceeds from the emergency telephone tax created by K.S.A. 1998 Supp. 12-5302 may not be used for the purchase of a Data Transmission Network, as described herein, or the Network's monthly charges. Moreover, such proceeds may not be used for the costs involved in training civil defense personnel on the creation and operation of the Map-Info Database described herein. However, if employees of a county attorney's office are part of the law enforcement response to 911 emergencies, proceeds of the emergency telephone tax may be used to pay for the monthly recurring charges for pagers used by that office. Cited herein: K.S.A. 1998 Supp. 12-5302; 12-5304.

* * *

Dear Mr. Taylor:

As Cowley County Counselor, you request our opinion regarding whether the emergency telephone tax proceeds (911 funds) may be used for certain items. K.S.A. 1998 Supp. 12-5304 states in part:

"(b) Funds collected from tax (sic) imposed pursuant to K.S.A. 12-5302 . . . shall be spent solely to pay for any or all of the following:

"(1) The monthly recurring charges billed by the service supplier for the emergency telephone service; (2) initial installation, service establishment;

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nonrecurring start-up charges billed by the service supplier for the emergency telephone service; (3) charges for capital improvements and equipment or other physical enhancements to the emergency telephone system; or (4) the acquisition and installation of road signs designed to aid in the delivery of emergency service."

The items in question are: (1) the purchase of a Data Transmission Network and payment of monthly charges; (2) monthly recurring charges for pagers for the Cowley County Attorney's office; and (3) costs to train civil defense personnel for creating and operating the Map-Info database which is part of the 911 emergency system.

In Attorney General Opinion No. 90-87, Attorney General Robert Stephan reviewed the legislative history of the emergency telephone statutes¹ and concluded that the cost of equipment used to receive and record 911 emergency calls as well as the cost of equipment necessary to dispatch emergency information to response units fell within the uses for 911 funds authorized by K.S.A. 1998 Supp. 12-5304. Using the rationale of that opinion, we review each item in turn.

1. Purchase of a Data Transmission Network (DTN) and payment of the monthly charges

You indicate that the DTN is a satellite weather information service that provides access to local, regional and national weather forecasts and information. This information system is a "stand alone" system in that all of the hardware and software is provided by DTN.

The first issue is whether the purchase cost of the DTN system is a "charge for capital improvements and equipment or other physical enhancements to the emergency telephone system." General Stephan opined that an "emergency telephone system" contemplates "a network or aggregation of parts joined in regular interaction to form an integral or organized whole serving a common purpose." This common purpose is "to provide a means of reporting emergency situations by using a single three-digit telephone number."

"In applying this interpretation to the items listed above, the primary questions appear to be whether the items purchased constitute part of a network or organized whole, and if so, whether they contribute to the common purpose of providing a '911' emergency telephone number. Several of the items clearly satisfy both tests. The actual telephone lines and hardware, 911 monitors and printers, three-station console and recording equipment are all linked together electronically and have regular interaction with one another. Moreover, these items are necessary to receive and record emergency telephone calls at a central location. Office furniture and equipment . . . fail to satisfy either of these tests.

¹K.S.A. 1998 Supp. 12-5301 *et seq.*

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[They do] not interact with the other components of the system, nor [do they] contribute . . . to the common purpose of the system."²

Based upon the information that you provided on the DTN system, it is our opinion that the system fails both of the tests established in Attorney General Opinion No. 90-87. The DTN system simply reports weather conditions to local officials who may then take action accordingly. It is a "stand alone" system and, therefore, is not part of the 911 network in the same way that telephone lines, monitors, printers, and recording equipment are. Moreover, it does not contribute to the common purpose of the 911 system which is simply to report emergency situations by dialing "911." Consequently, 911 funds may not fund its purchase or any charges associated with it.

2. Monthly recurring charges for pagers for the Cowley County Attorney's office

Attorney General Stephan opined that purchase of equipment used to dispatch emergency response such as pagers and mobile radios is an appropriate use of 911 funds. The pagers at issue in Attorney General Opinion No. 90-87 were used to relay information from the base station to emergency response units:

"[It] is our opinion that [pagers] may be purchased with emergency telephone tax funds. The common meaning of the term 'emergency telephone system' would seem to include any item which has regular interaction with the other components of the system and which contributes to the common purpose of the system. *Our review of legislative history has convinced us that relaying information from the base station to emergency response units is part of the common purpose of the [911] system. Pagers and mobile radios may be necessary in order to maintain communication with the base station and receive this information.* Therefore, a strong argument can be made that these items are as much a part of the overall emergency telephone system as the dispatch equipment at the base station." (Emphasis added.)

Attorney General Stephan indicated that an "emergency response unit" includes "police, fire, and medical." In some counties, a county attorney's office may be part of a law enforcement response to a 911 emergency and, therefore, in those circumstances, the use of 911 funds for the recurring monthly charges for pagers may be appropriate. Therefore, if employees of the Cowley County Attorney's office are part of the law enforcement response to 911 emergencies, it is our opinion that 911 funds may be used.

²Attorney General Opinion No. 90-87.

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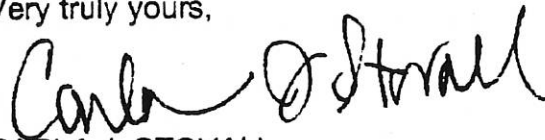
3. Costs to train personnel for creating and operating the Map-Info Database

You indicate that 911 funds are now used for the Map-Info Database which is part of the 911 Mapping and Signing System. Your query is whether 911 funds may be used to pay for a two-day training course in Dallas, Texas on the creation and operation of the Map-Info Database.

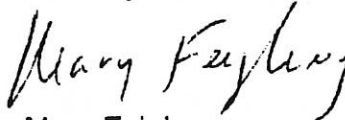
Attorney General Opinion No. 90-87 addresses the use of 911 funds to pay for equipment, not training on the equipment. However, if 911 funds are to be used, the training must fall within the parameters of subsection (b) of K.S.A. 1998 Supp. 12-5304. Subsection (b) allows 911 funds to be spent for monthly service charges for the 911 system, initial installation, establishment of service and start-up charges for the 911 system, equipment for the emergency telephone system, and road signs. Clearly, subsection (b) does not provide for training and, therefore, it is our opinion that 911 funds may not be used.

Summarizing, it is our opinion that proceeds from the emergency telephone tax created by K.S.A. 1998 Supp. 12-5302 may not be used for the purchase of a Data Transmission Network or its monthly charges. Moreover, such proceeds may not be used for the costs involved in training personnel on the creation and operation of the Map-Info Database. However, if employees of the Cowley County Attorney's office are part of the law enforcement response to 911 emergencies, 911 funds may be used to pay for the monthly recurring charges for pagers used by that office.

Very truly yours,



CARLA J. STOVALL
Attorney General of Kansas



Mary Feighny
Assistant Attorney General

CJS:JLM:MF:jm

Examples of Answering Points

Pawnee County



Sedgwick County

Franklin County



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Kansas Statutes

Kansas Legislative Services



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12-5304

Chapter 12.--CITIES AND MUNICIPALITIES Article 53.--EMERGENCY TELEPHONE SERVICES

12-5304. Emergency telephone tax; use of proceeds; authorization for contracts. (a) Any governing body imposing the tax authorized by K.S.A. 12-5302, and amendments thereto, may contract directly with the provider of the emergency telephone service or may contract and cooperate with any public agency or with other states or their political subdivisions or with any association or corporation for their political subdivisions or with any association or corporation for the administration of emergency telephone service as provided by law.

(b) Funds collected from tax imposed pursuant to K.S.A. 12-5302, and amendments thereto, shall be spent solely to pay for any or all of the following: (1) The monthly recurring charges billed by the service supplier for the emergency telephone service; (2) initial installation, service establishment; nonrecurring start-up charges billed by the service supplier for the emergency telephone service; (3) charges for capital improvements and equipment or other physical enhancements to the emergency telephone system; or (4) the acquisition and installation of road signs designed to aid in the delivery of emergency service.

History: L. 1980, ch. 179, § 4; L. 1984, ch. 79, § 1; L. 1988, ch. 81, § 1; L. 1996, ch. 13, § 1; Feb. 29.

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ATTACHMENT 7

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Statements: Commissioner Tristani



NEWS

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

News media information 202 / 418-0500
Fax-On-Demand 202 / 418-2830
Internet: <http://www.fcc.gov>
TTY: 202/418-2555

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See *MCI v. FCC*, 515 F 2d 385 (D.C. Circ 1974).

FOR IMMEDIATE RELEASE
SEPTEMBER 15, 1999

NEWS MEDIA CONTACT:
Meribeth McCarrick at (202) 418-0654

FCC ACTS TO PROMOTE COMPETITION AND PUBLIC SAFETY IN ENHANCED WIRELESS 911 SERVICES

Washington, D.C. ---The Federal Communications Commission (FCC) has revised its rules aimed at providing consumers with enhanced 911 emergency services when using wireless phones. The new requirements promote public safety, competition among wireless 911 equipment manufacturers and the continued improvement in the quality of 911 services.

Specifically, the new rules will enable handset-based methods of providing location information for 911 calls to compete in a reasonable way with network-based solutions in meeting the FCC's Enhanced 911 (E911) Phase II requirements. The FCC also modified implementation requirements for carriers and revised the accuracy/reliability rules applicable to all Automatic Location Identification (ALI) technologies. These new rules will benefit both callers and public safety entities by providing accurate and efficient automatic location information in emergencies.

Background on E911:

The FCC's wireless 911 rules seek both to improve the reliability of wireless 911 services and to provide the enhanced features generally available for wireline calls. To further these goals, the agency has required wireless carriers to implement E911 service, subject to certain conditions and schedules, including a request from a Public Safety Answering Point (PSAP). Phase I of the FCC's E911 rules requires that a dialable number accompany each 911 call, which allows the PSAP dispatcher to call back if the call is disconnected or to obtain additional information. It also gives the dispatcher the location at the cell site that received the call as a rough indication of the caller's location. Phase II of the FCC's wireless 911 rules allows the dispatcher to know more precisely where the caller is located, a capability called Automatic Location Identification or ALI.

The current FCC E911 rules were adopted in 1996, and reflected then current expectations about technological development. At that time, it was anticipated that only network-based approaches would be employed to provide ALI. Since then advances in technologies that employ new or upgraded handsets have demonstrated significant progress. However, as a practical matter, current FCC rules only permit network-based solutions to meet the Phase II requirements in the short term because they require that ALI be provided for all 911 calls in a PSAP's area as of a fixed date (October 1, 2001). As a result, the current rule effectively precludes use of a handset-based approach, which requires the gradual replacement or upgrade of current handsets. Today the FCC revised its rules to permit the phase-in of new or upgraded handsets in order for handset-based solutions to be a viable competitor for initial

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ALI deployment under Phase II, while making other revisions aimed at promoting wireless E911 and improving public safety.

Specifics of Today's Action:

The FCC adopted the following revisions to its wireless E911 rules:

- Wireless carriers who employ a Phase II location technology that requires new, modified or upgraded handsets (such as GPS-based technologies) may phase-in deployment of Phase II subject to the following requirements:
 - Without respect to any PSAP request for Phase II deployment, the carrier shall:
 1. Begin selling and activating ALI-capable handsets no later than March 1, 2001;
 2. Ensure that at least 50 percent of all new handsets activated are ALI-capable no later than October 1, 2001; and
 3. Ensure that at least 95 percent of all new digital handsets activated are ALI-capable no later than October 1, 2002.
 - Once a PSAP request is received, the carrier shall, in the area served by the PSAP:

Within six months or by October 1, 2001, whichever is later:

1. Ensure that 100 percent of all new handsets activated are ALI-capable;
2. Implement any network upgrades or other steps necessary to locate handsets; and
3. Begin delivering to the PSAP location information that satisfies Phase II requirements.

Within two years or by December 31, 2004, whichever is later, undertake reasonable efforts to achieve 100 percent penetration of ALI-capable handsets in its total subscriber base.

- For roamers and other callers without ALI-capable handsets, carriers shall support Phase I ALI and other available best practice methods of providing the location of the handset to the PSAP.
- To be allowable under the FCC rules, an ALI technology that requires new, modified, or upgraded handsets shall conform to general standards and be interoperable, allowing roaming among different carriers employing handset-based location technologies.
- For carriers employing network-based location technologies, the FCC replaces its current plan, which requires that implementation be fully accomplished within 6 months of a PSAP request, with a revised rule requiring the carrier to deploy Phase II to 50 percent of callers within 6 months of a PSAP request and to 100 percent of callers within 18 months of such a request.
- The FCC adopts the following revised standards for Phase II location accuracy and reliability:
 - For network-based solutions: 100 meters for 67 percent of calls, 300 meters for 95 percent of calls;
 - For handset-based solutions: 50 meters for 67 percent of calls, 150 meters for 95 percent of calls.
- The FCC directs wireless carriers to report their plans for implementing E911 Phase

II, including the technology they plan to use to provide caller location, by October 1, 2000. This report shall provide information to permit planning for Phase II implementation by public safety organizations, equipment manufacturers, local exchange carriers, and the FCC, in order to support Phase II deployment by October 1, 2001.

- The FCC directs that the Office of Engineering and Technology and the Wireless Telecommunications Bureau, working with interested parties, proceed expeditiously to address issues of verifying compliance with the Phase II accuracy and reliability standards.

Action by the Commission September 15, 1999, by Third Report and Order (FCC 99-245). Chairman Kennard, Commissioners Ness, Furchtgott-Roth, Powell and Tristani with Commissioner Tristani issuing a separate statement.

News Media Contact: Meribeth McCarrick at (202) 418-0654; TTY at (202) 418-7233; or e-mail at mmccarri@fcc.gov

Wireless Bureau contacts: Dan Grosh at (202) 418-1310, e-mail dgrosh@fcc.gov Mindy Littell (202) 418-1310, e-mail mlittell@fcc.gov or TTY at (202) 418-7233.

WT Report No. 99-27

CC Docket No. 94-102

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

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This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC. 515 F 2d 385 (D.C. Circ 1974).

FOR IMMEDIATE RELEASE:
November 18, 1999

News Media Contact:
Meribeth McCarrick at (202) 418-0654
e-mail: mmccarri@fcc.gov

FCC ACTS TO REMOVE BARRIERS IMPEDING ENHANCED WIRELESS 911 SERVICE

Washington, DC -- The Federal Communications Commission (FCC) today acted to remove impediments to the deployment of enhanced 911 (E911) services for wireless users. Enhanced wireless 911 services help ensure that in emergencies wireless phones provide vital information to assist 911 call centers, or Public Safety Answering Points (PSAPs), in locating the caller.

The FCC took a number of steps. First, the FCC amended its cost recovery rule to modify the requirement that a mechanism for cost recovery be in place before a carrier is obligated to provide E911 services. The FCC affirmed the requirement that a formal mechanism be in place for PSAP cost recovery, but eliminated as a barrier to E911 implementation any prerequisite that carrier E911 costs be covered by a mechanism. Of course, a cost recovery mechanism is not necessary to permit carriers to recover their costs. The Commission emphasized, however, that the revised rules do not disturb current state and local cost recovery schemes that are already working, nor was it discouraging state and local governments from deciding that cost recovery or sharing mechanisms that cover carrier costs are an effective way of expediting wireless E911 for their citizens, especially in rural areas.

The FCC also emphasized, however, that adequate funding for PSAPs remains critical to successful E911 implementation. To help ensure that carriers are not required to make unnecessary expenditures before a PSAP is ready to use E911 information, and to encourage and support local and state authorities in the funding of wireless E911, the FCC decided to retain in its revised rule a requirement for a PSAP cost recovery mechanism.

Second, the FCC concluded that negotiations between Commercial Mobile Radio Services (CMRS) carriers and PSAPs should remain the primary means of ensuring an expeditious selection of transmission method that meets the individual requirements of the PSAP and carrier in each situation. In the event that an impasse arises, FCC staff will be available to help resolve these disagreements, based on consideration of a number of specific factors.

Third, the FCC noted the critical role played by incumbent local exchange carriers (LECs) in the implementation of wireless E911 service, by, for example, transmitting calls from the wireless carrier to the PSAP. While declining to adopt any new obligations, the FCC made clear that parties could bring complaints before the state public service commissions or the FCC if an incumbent LEC failed in the performance of any of its obligations. It also stated that parties could request consideration of such complaints under the Commission's "rocket docket" procedures.

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Background on Wireless 911 Rules:

The FCC's wireless E911 rules require certain CMRS carriers to begin transmission of enhanced location information in two phases. Phase I requires carriers to transmit a caller's phone number and general location to a Public Safety Answering Point (PSAP). Phase II requires more precise location information be provided to the PSAP. Under the current rules, two prerequisites must be met before the wireless carrier is obligated to implement E911. The carrier must receive a request from a PSAP that it has the capabilities to receive and use the location information, and there must be in place a mechanism for recovering the costs of implementation. Carriers are to provide the requested E911 service by the later of six months after the prerequisites are met, or April 1, 1998 (for Phase I) or October 1, 2001 (for Phase II).

Today's action is in response to filings concerning delays in E911 implementation as well as petitions for reconsideration and clarification of the FCC's E911 rules. Resolution of these issues should address delays in implementation of Phase I service and ensure implementation of Phase II service.

Detailed Summary of Specific Actions Taken by the FCC:

First, the FCC decided that the E911 rules will continue to require that a mechanism for PSAP cost recovery be in place before a carrier's obligation to provide E911 services is triggered. However, the FCC eliminated the prerequisite for carrier cost recovery. Specifically, the FCC explained that before a carrier is required to provide E911 services pursuant to a PSAP request, the PSAP must have a means of receiving and utilizing the data elements associated with those costs. The FCC stated that adequate funding of PSAPs is a critical element in ensuring timely E911 implementation and retaining the provision for PSAP cost recovery may assist PSAPs in obtaining necessary funding. The FCC noted that by retaining the PSAP cost recovery requirement, it was not mandating action by state or local governments or defining the nature or extent of any funding mechanism. The Order is not intended to interfere with their authority over 911 systems and how those systems are managed and maintained. However, the FCC noted that state and local public safety officials need to be provided with a means to use wireless E911 location information. Otherwise, PSAPs will be unable to dispatch emergency services to wireless 911 callers in life-threatening situations as quickly as possible.

Second, the FCC agreed that disputes between CMRS carriers and PSAPs on the choice of E911 transmission means also have contributed to delays in Phase I implementation. However, based on the current record and in light of the modification of the cost recovery prerequisite for E911 implementation, the FCC concluded that negotiations between the parties remain the primary means of ensuring an expeditious selection of transmission method that meets the individual requirements of the PSAP and carrier in each situation. In the event that an impasse arises, FCC staff will be available to help resolve these disagreements, based on consideration of a number of specific factors. These factors would include: the additional costs of the methodologies to the PSAP and the wireless carrier, whether the carrier is paying for its own E911 implementation costs or receiving funding from another cost recovery mechanism; the technical configuration of the PSAP's existing E911 system; the impact of technology choice on the implementation of seamless, ubiquitous and reliable E911 systems in a given area; and the ability of the transmission technology to accommodate Phase II of wireless E911 and other planned changes in the E911 system.

Third, the FCC found that this Commission and the relevant State public service commissions can address the issues concerning local exchange carriers (LECs) that are identified as potential reasons for delay in the implementation of E911. LECs are important factors in achieving E911 implementation when State 911 systems are LEC-based. Although

the FCC did not, at this point, impose special obligations on incumbent LECs to implement wireless E911, it noted that incumbent LECs are already subject to obligations under the Telecommunications Act of 1996, as well as various Federal and State regulations, to ensure that interconnection agreements with CMRS carriers are fulfilled promptly and fairly. The FCC intends to further monitor the role of LECs to determine whether there is a need to impose additional obligations to ensure implementation of the wireless E911 rules. The FCC also noted that parties may request consideration under its rocket docket procedures of complaints filed under Section 208 of the Communications Act against LECs for violation of LECs' existing obligations.

Finally, the FCC noted that requests in the record for protection from liability for providing E911 service and to mandate nationwide usage of 911 as the number for emergency assistance have been resolved by the Wireless Communications and Public Safety Act of 1999 (E911 Act). That Act requires that States provide CMRS carriers, users, and PSAPs involved in the transmission of wireless 911 and E911 calls with liability protection to the same extent the State provides protection with respect to wireline 911 services. The E911 Act also provides that the FCC designate 911 as the universal emergency telephone number for both wireline and wireless telephone service and includes provisions for transition periods and FCC action to encourage the development of State E911 systems.

Action by the Commission on November 18, 1999 by Second Memorandum Opinion and Order (FCC 99- xx). Chairman Kennard, Commissioners Ness, Furchtgott-Roth, Powell and Tristani, with Commissioner Furchtgott-Roth issuing a separate statement.

Wireless Bureau Contact: Barbara Reideler at (202) 418-1300, TTY at (202) 418-7233 or e-mail: breidele@fcc.gov

CC Docket No. 94-102
WT Report No. 99- 32

**MEMORANDUM ON E-911
FEDERAL ACTIONS IN RECENT MONTHS
January 13, 2000**

I want to briefly address three issues that surfaced at the federal level after the Post Audit reports on E-911 were completed: cost recovery, technology deployment deadlines, and liability protection for wireless companies.

COST RECOVERY

As Cindy Lash explained, the Federal Communications Commission (FCC) issued regulations requiring wireless phone companies, under certain conditions, to provide Enhanced 911 services for wireless phone users. The FCC regulations set up a two-phase process for implementing Enhanced 911.

As noted in the Post Audit report (Part II) on p. 3, in the first phase, a wireless phone company must, upon request, be able to transmit certain information to a 911 public safety answering point (the facility which is operated on a 24 hour basis, assigned the responsibility of receiving 911 calls and, as appropriate, dispatching them to the appropriate public safety agency.) The information to be transmitted to the answering points includes:

- The phone number of the wireless phone and
- The location of the cell tower receiving the signal.

The second phase requires the wireless phone company to transmit the following information to an answering point by October 1, 2001:

The location of the caller by longitude and latitude, within 400 feet of the caller's location for about 67 % of calls.

Implementation of both phases was conditioned by a combination of three conditions:

- A request by the 911 answering point

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- Capability of the answering point to receive the information transmitted to it
- Availability of a cost-recovery system to reimburse wireless phone companies for the costs they will incur in providing E-911 services.

The last precondition was removed in an order issued by the FCC on December 8, 1999.

One of two handouts you have before you is titled *FCC Acts to Remove Barriers Impeding Enhanced Wireless 911 Service*. The FCC's reasons for removing the cost recovery mechanism as a precondition for implementation of E911 services are:

- The FCC did not consider it necessary to mandate a cost recovery mechanism for carriers that are anyway not subject to rate regulation.
- The requirement that a cost recovery mechanism be in place delays implementation of Phase 1.

Let's talk in more detail about the FCC's reasons for eliminating cost recovery mechanisms as a precondition for implementation. In August 1999, an implementation report was submitted to the FCC by various public safety associations and the Cellular Telecommunications Industry Association. The report concluded that cost recovery issues have impeded implementation of Phase 1 in some cases. The report further concluded that the pace of legislative progress can often be correlated to the differing interests of answering points and wireless carriers regarding funding legislation and mechanisms.

According to the report, 33 states had imposed wireless 911 surcharges. Since 1996, when the FCC promulgated its initial regulations, four states (Hawaii, Kansas, Idaho, and Missouri) rejected the opportunity to enact a funding mechanism. The report cited that administrative processes in three states – Georgia, Indiana, and Colorado – could be contributing to implementation delays and funding may be inadequate in at least two states with cost recovery mechanisms – California and Arizona. Despite a majority of states (33 states with cost recovery mechanisms for wireless companies), less than 3 percent of wireless subscribers nationally can access Phase 1 service. The implementation report noted that there were 284 answering points in 15 states that have implemented E-911 services in Phase 1. However, there is a national total of

10,000 answering points so only 2.84 percent of all answering points are implementing Phase 1 and implementation of Phase II has not even begun.

The implication of the removal of the cost recovery mechanism requirement is that states may establish cost recovery mechanisms for wireless carriers but they are no longer required to do so. In the absence of a state-adopted mechanism, carriers could recover their costs either through a line item on their bills or as a cost of doing business.

Although the FCC removed the requirement of a cost recovery mechanism for carriers, the FCC retained the requirement of a cost recovery mechanism for answering points. The FCC recognized that answering points need adequate funding to finance upgrades for their hardware and software capabilities to receive and use the location information transmitted to them in Phases I and II.

Technology Deployment in Phase II

Another fairly recent FCC action pertains to the methods of providing specific data about a caller's location, as required in Phase II. If you look at p. 6 of the Post Audit report, the triangulation method which is a network-based solution and GPS which is a handset-based solution are described. The deadline for deployment, assuming there is a request from an answering point, was October 1, 2001. To put it plainly, the FCC revised its rules to phase in GPS, if that method is selected. The deployment deadline will be extended to December 31, 2004. A good explanation for the FCC's logic for changing the deployment deadline is found in the last paragraph of p. 1 of the news release I distributed titled *FCC Acts to Promote Competition and Public Safety in Enhanced Wireless 911 Services*. The FCC also extended the deadline for 100 percent deployment of triangulation to 1 ½ years instead of 6 months. This extension would accommodate negotiation of contracts associated with installation of new equipment at transmission towers or other sites, review and approval by local authorities, the installation of the equipment, and coordination between the wireless carrier's system and testing before the system is turned on. The bottom line in that decision is there is more scheduling flexibility for wireless carriers to implement Phase II.

Liability Protection for Wireless Carriers

Until recently, the FCC had not provided liability protection to wireless carriers. Wireless carriers were concerned that several factors outside their control could prevent them from processing an E-911 call. These factors included an inability to site antennae, radio frequency interference, and terms of a carriers license that did require them to provide coverage throughout their service area. In contrast, telephone companies enjoyed liability protection under their tariffs. A federal law enacted on October 26, 1999 provides wireless carriers the same liability protection enjoyed by telephone companies in each state. The same terms for liability protection are granted users of the wireless 911 service and the answering point using the service. Because this federal law was enacted, the FCC declined to address liability protection in its most recent order.

MEMO

TO: House Committee on Utilities
FROM: Jim Yonally
RE: Information requested by the committee
DATE: January 13, 2000

First, I want the committee to understand that I am not representing the position of Cellular One on the question posed by the committee. I am appearing today ONLY as a provider of information, which I hope will be of assistance.

Secondly, any discussion of automatic location identification (ALI) technology is a bit premature as it only comes into play in the Phase II implementation, and, of course, we have not even started implementing Phase I at this point. However, it is a fascinating topic, and I will endeavor to shed some light on the subject.

The committee's question, as I understood it, was what are the advantages and disadvantages of the "triangulation" versus the "GPS" method of obtaining ALI. Our company, and to my knowledge most wireless carriers, do not have a preference between the two methods, but rather believe that companies should be allowed to choose whichever technology will permit them to provide the most effective and efficient service to their customers. (See accompanying article from "TR WIRELESS", a trade publication, September 23, 1999.)

Notwithstanding the above, some considerations regarding each approach:

"TRIANGULATION" - Each call probably needs at least three cellular towers to be able to provide the necessary information to make a location determination. Considering that each tower may have a range of 5 to 20 miles, depending on the terrain, that could mean a LOT of towers. Also, it's my understanding that each tower may cost between \$20,000 and \$50,000. Whether the populace wants that is perhaps questionable. One advantage to this method is that the cell phone, itself, does not need to be modified. One privacy concern, this method would allow for the "tracking" of a cell phone, anytime it is used. That is, the technology would automatically be in place to determine the location of the cell phone every time it is used.

"GPS" - The GPS, or global positioning system, is the latest technology. It should be available soon, discussions are ongoing with chip manufacturers and production should start later this year. One advantage is that it provides much greater location accuracy, down to (as advertised) 4 to 10 meters in a rural environment. It works best with a "clear line of sight" from the cell phone to the satellite, and in fact, may not (with current technology) work AT ALL in a congested urban area, inside a building with several dense walls between the phone and the satellite. Biggest challenges with this method are that it takes a considerable upgrade for the network to be able to "decipher" the location information and that customer must have the proper handset technology to "transmit" to the satellite. Thus latter problem could be offset, to some extent by the fact that handsets "turnover" about every 2-3 years, anyway.

Given a bit more notice, we, and the other carriers can surely provide you with more expertise on this subject. However, for the short term, I hope this will be of some help in your deliberations

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Regulatory Front

FCC Rules Will Allow Handset-Based 'E911'

The FCC has adopted new rules for implementing enhanced "911" (E911) wireless location technology that will permit carriers to choose handset-based technology, network-based technology, or a combination of both to locate people calling emergency services on their wireless phones.

The decision will be a major boost to vendors of handset-based automatic location identification (ALI) technology, such as Snaptrack, Inc., which have argued that the Commission should allow carriers to choose the best possible means of pinpointing wireless callers in distress (*TRW*, July 8).

The rules adopted Sept. 15 are a step toward resolving a contentious technological debate within the wireless industry over whether handset-based or network-based technology is superior.

In comments filed this summer in Common Carrier docket 94-102, wireless carriers generally asked the FCC to give them as much flexibility as possible in their choice of technology.

The Commission's existing E911 rules were adopted in 1996 before the development of handset-location technologies. Those technologies rely in part on the satellite-based global positioning system.

The existing rules for Phase II E911 capability, which require carriers to locate emergency callers to within a specified radius, permit only network-based solutions because they require E911 systems to provide location information for all callers in an area as of a fixed date: Oct. 1, 2001. Carriers implementing handset-based E911 solutions must convert their subscriber base to the new handsets gradually.

Many wireless carriers have sought waivers of the Oct. 1, 2001, deadline for implementing the Phase II requirements on the grounds that they are considering adopting handset-based technol-

ogy. Meanwhile, the FCC's efforts to implement a nationwide Phase II E911 policy are jeopardized by a continuing dispute over how to pay for E911 equipment upgrades at emergency dispatch centers (*TRW*, Aug. 19).

The new FCC rules modify the accuracy and reliability standards that apply to all ALI technologies. They also set forth a schedule for carriers who adopt handset-based technologies to distribute new handsets to their customers.

The FCC specified a number of new requirements for carriers that choose to deploy handset-based systems: (1) the carriers must begin selling and activating ALI-capable handsets no later than March 1, 2001; (2) the carriers must ensure that at least 50% of all new handsets activated are ALI-capable no later than Oct. 1, 2001; (3) the carriers must ensure that at least 95% of all new digital handsets activated are ALI-capable no later than Oct. 1, 2002.

Once a carrier receives a request from a local emergency dispatch center for Phase II E911 service, the new rules require it to carry out the following steps within six months or by Oct. 1, 2001, whichever is later:

- Ensure that all new handsets activated are ALI-capable;
- Complete network upgrades needed to locate handsets; and
- Begin delivering location information to local emergency dispatch centers.

Carriers will be required within two years or by Dec. 31, 2004, whichever is later, to "undertake reasonable efforts to achieve 100% penetration of ALI-capable handsets" to all subscribers, the FCC said in a press release.

The FCC also adopted revised standards for location accuracy, as follows: (1) for network-based systems, 100 meters (328.1 feet) for 67% of calls, and 300 meters (984.3 feet) for 95% of calls; and (2) for handset-based solutions, 50 meters (164.05 feet) for 67% of calls, and 150 meters (492.15 feet) for 95% of calls.