

1 It's a curiosity for me with a whole number of big
2 handset manufacturers around here that we don't hear any
3 commitment or any mentioning from one of the handset
4 manufactures as where do they anticipate that I will be able
5 to buy the first Snaptrack or IDC-equipped handset in the
6 market, so we can start discussing how these are going to be
7 handled that way? Is that a question that we can answer,
8 maybe?

9 MR. O'LEARY: Can the carrier answer that?

10 MR. HATFIELD: Yes, sure.

11 MR. O'LEARY: From our perspective -- Eamon
12 O'Leary, AT&T Wireless -- we're certainly working towards
13 that one day, however, I believe the technology is still
14 evolving and we want to choose the best solution.

15 Now, I believe we've heard from eight or nine
16 different people here today and I think if you ask them,
17 they will have chosen eight or nine different criteria to
18 measure compliance. So some help with that would certainly
19 help us with making a decision.

20 Also, I think one of the things that I have not
21 heard from here today, which is something that concerns us
22 quite a lot, actually, is how to maintain the performance of
23 the system in the real operation environment? We've heard
24 from several trials that were done in very controlled
25 environments, but trying to operate and maintain a radio

1 network is a very difficult thing to do. And we want to be
2 able to maintain the performance and the accuracy of the
3 system ten years from now, as our network evolves. And as
4 our network is getting more sophisticated, we're
5 implementing things like the automatic power controls, the
6 automatic channel allocations and things like that, and I'd
7 like to hear from you how your system will handle those
8 kinds of things or if they have to be handled manually.
9 They're not integrated with our existing infrastructure. We
10 don't have the alarms integrated with our existing
11 infrastructure.

12 How difficult is it for us as an operator going to
13 be to maintain the accuracy of the system in an automatic
14 channel allocation power control, not an alarmed
15 environment/

16 MR. STILP: If I can answer the question, I feel
17 like they're stacking up faster than we can get them all
18 answered here. Lou Stilp, TruePosition. TruePosition's
19 system, as I mentioned earlier, can go out and sample as
20 many as 192 different antennas. So every location that is
21 calculated -- that is, if somebody dials 911 and hits the
22 send button, radio waves radiate in all directions, and
23 they're received at an awful lot of different antennas,
24 except in this room, of course.

25 And the system dynamically samples everyone of

1 those antennas and determines for that one particular call
2 which set of antennas are the best ones to use in order to
3 calculate location for that one particular call. If you
4 were to make ten calls in a row, standing in the same spot,
5 you may not get the exact same set of antennas all ten
6 times. So there is a fair amount of dynamic calculation
7 that goes on inside the system, based upon real life
8 measurements.

9 There is one point that is manual now about
10 TruePosition's system. That is, when it comes to knowing
11 which control channels are assigned to which cell sites,
12 that must be programmed manually in. However, based upon a
13 contract that was signed and announced earlier this year,
14 with at least one vendor, Ericsson, TruePosition and
15 Ericsson are working on dynamic links between the two
16 systems, in which every time a carrier makes a change to the
17 control channel, frequency allocation, those changes are
18 automatically downloaded into the TruePosition system.

19 And to the last point that I heard Mr. O'Leary
20 mention, that when it comes to dynamic or automatic channel
21 location, that is primarily a voice channel issue. That is,
22 once you've gotten off the control channel onto the voice
23 channel, if I'm correct, isn't that right, all voice channel
24 information, when TruePosition tracks on the voice channel,
25 the information about which voice channel is currently in

1 use by the subscriber comes directly from the switch. That
2 is the subject of what is going on in Tier 45.2 at the
3 Emergency Service Group and also the subject of a joint
4 development effort between Ericsson and TruePosition. So
5 with at least one vendor, we're kind of blazing the trail on
6 solving the problems Mr. O'Leary has mentioned.

7 MR. O'LEARY: How about the other vendors? RF
8 fingerprinting would be one we'd be particularly interested
9 in.

10 DR. HILSENATH: We're by and large, a traffic
11 channel system. So we're not paying attention to the
12 control channels. That is not a feature that would affect
13 us. We're expecting, as Lou said, to have the right link to
14 the carrier such that it's been pointed out to us which
15 channel needs to be located and the identity of that
16 channel, therefore, we are totally insensitive to the change
17 of frequency plan of the carrier in that specific market.

18 The changes that would affect us and that leads us
19 to the default issuance issue that I think we need to
20 discuss is potentially if a carrier overnight decides to
21 dismantle a base station in which a radio camera is
22 installed and therefore, there are no antennas anymore to
23 access.

24 But overall, we're looking at the totally
25 independent overlay. They can be co-located, but totally

1 independent, and the information we need is really the one
2 that is associating which caller utilizes what channel in
3 order to be able to handle the traffic.

4 There is, in both your questions, in Ron Rudokas'
5 question at the beginning of the session, I think, a key
6 issue which is, how do you maintain the quality, how do you
7 audit the performance of your location system in a market?
8 That's a serious topic to be addressed, due to all the
9 changes that could be in the market -- towers, construction,
10 frequency allocations, etc.

11 That is definitely a topic that needs to be
12 handled, I believe, quite similar to the way the carrier is
13 maintaining its own operation. U.S. Wireless has a process
14 that is really indigenous in the system, in which there are
15 a small number of anchors in most of the markets today one,
16 that are roaming and calculating on line as they are
17 traveling, the accuracy of the location system, everywhere
18 they're roaming within the network.

19 So at the end of each of these drives, U.S.
20 Wireless can state what is the location performance in any
21 single location in the street. This is the type of review
22 that I think is going to be necessary. Location is not
23 going to -- we do not want location to degrade, knowing that
24 there's probably safety riding on that performance. So
25 we're building that capability as part of supporting, of the

1 operating costs, if you want, the operating strategy of a
2 market.

3 MR. SUGRUE: Mr. O'Leary, when you asked about
4 long term network maintenance and it would have to be in
5 place and what not, you seemed to be looking more at the
6 network people. Is it differentially a network issue?

7 MR. O'LEARY: Correct, trying to maintain -- it's
8 almost a separate radio network they will have to maintain,
9 and we'll have to maintain accuracy for that network, as
10 well. And the radio network that we have today has evolved
11 quite a lot over the years, so a lot of the functions have
12 been automatically built in that were manual years ago. So
13 before, when the RF engineers used to go over and tweak it
14 manually, now it's done automatically and the links are
15 built into the network systems that I know of to sink them
16 up. And that's, that would mean then that the location
17 system could fall out of -- gives the wrong values.

18 MR. BELL: This is Walter Bell from SnapTrack. I
19 think it's just important to point out that this has been a
20 good discussion, because I think it shows that there are
21 substantial ongoing costs associated with network based
22 solutions. I'd just like to point out again that we have a
23 \$7 to \$10 first generation initial implementation cost added
24 to the handset. That's it for the cost and then as the
25 technology rides normal technology curves, that's going to

1 drop dramatically. This is not an overlay's second radio
2 network that's going to require a lot of additional costs
3 and maintenance over time. It's a one shot cost.

4 There was also some questions about privacy, which
5 I don't think anyone from the handset site got a chance to
6 respond to. Handset based solutions inherently have the
7 capability for privacy. You can turn off the location
8 feature if you don't want to be tracked. It's very easy,
9 then, to have a 911 call override that, because by dialing
10 911, just as with a wire line network, you're saying it's
11 okay to locate me. So an override is certainly reasonable
12 there.

13 And then, finally there were questions about where
14 the handset manufacturers in terms of handset based
15 solutions -- let me say for SnapTrack and we have the
16 privilege of working with two outstanding handset
17 manufacturers already, that they are already working on the
18 semiconductor parts. They have programs that would put the
19 first generation of parts available to build in the handsets
20 that are reasonable integration costs in the first half of
21 next year. And that can drive handset availability by the
22 end of next year, early the following year. And I think
23 what would really help those handset manufacturers was some
24 indication from the FCC that, indeed, handset based
25 solutions are going to be allowed to compete for this

1 technology solution.

2 MR. MALONEY: This is John Maloney from KSI.

3 Relative to normal operating costs and requirements, for
4 example, for maintaining calibration and things like that,
5 we don't have experience with the time synchronization
6 standards, for example, that Lou has had to work with so
7 far. But it's certainly true that when you're doing angular
8 processing on phased array types of analysis, there is some
9 calibration involved. I will say, I expected it to be
10 required much more often. We have -- the last time we
11 calibrated our general operational area and our Northern
12 Virginia headquarters area was six months ago, and that's
13 still working fine.

14 So there aren't continuous, say, tooling and
15 adjustments that are required, and it's turned out to be
16 much more stable than one might have guessed. Relevant to
17 privacy, I would say that's a fairly specious argument
18 that's been raised to networks. Any forms of processing
19 that's dealing in private information has authentication and
20 authorization procedures. Our does today. There's nothing
21 private about a cellular call, as we found out,
22 unfortunately. It's illegal, but it's technically possible
23 and it's been illegally done. It doesn't mean it can't
24 physically be done. It's not authorized.

25 We don't expect that the distribution of

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1 identified location information on private individuals,
2 first of all, would be economically useful and secondly,
3 would be legal. It may be technically possible, but it
4 isn't expected to be legal.

5 Oliver mentioned location information. There's
6 nothing sensitive about that unless it's identified with
7 someone at some time. So in fact, it's the connection, the
8 joint set of information, time, identity and location. For
9 doing normal everyday traffic analysis that our highway
10 departments hope to get away with, so that you citizens can
11 get away with only paying 2 percent of what you would have
12 to to support your own desires for efficient traffic
13 management.

14 You can do that by stripping all identity
15 information and just figuring out what the speeds are on the
16 highways that are going on. The infrastructure approach
17 supports all that. It supports good, effective
18 communications. You can run your communication system more
19 effectively if you exploit location information, first of
20 all, in tuning your system and understanding where your
21 trouble spots are, perhaps in even doing real time smart
22 handoff decisions. All of those things are possible with
23 infrastructure based information, which aren't possible if
24 the basic location data isn't available.

25 Finally, I'll just say in my stacked up sets of

1 answers that I didn't get a chance to get to, certainly, the
2 linear deployment of antennas along highways, there's a
3 prime example where you would have two sites in contact.
4 And as folks mentioned to my right, the combination and
5 integration of time information and angle information is
6 particularly appropriate there. One time measurement puts
7 you on a hyperbola. The angle tells you whether it's on the
8 highway or whether it's the farm laborer on the tractor
9 having the heart attack off in the field to the side of the
10 highway. So the combination and integration of information
11 that I mentioned in the location calculations is the way we
12 implement it. And it's all beneficial.

13 MR. SOLIMAN: QUALCOMM would like to make some
14 comments regarding the availability of handsets to support
15 the hybrid approach. QUALCOMM has located the resources to
16 insure, if the carriers desire, that all new handsets
17 introduced after October, 2001, comply with existing E-911
18 mandate specifications.

19 MR. KAHAN: This is Dennis Kahan from SigmaOne.
20 I'd like to respond to one of the things that does perplex
21 me about handset based approaches, especially the oft-heard
22 claim of the \$7 to \$10 per part. I mentioned earlier in my
23 presentation that when a consumer goes to buy a computer, he
24 doesn't ask, what do the manufacturer's parts cost for that
25 hard drive? If I said it was \$2, would it mean anything to

1 the consumer? It would not.

2 The real issue is not the \$7 to \$10. I think that
3 that number is accurate and I have no reason to disbelieve
4 it whatsoever. The real question is going to be, what about
5 all the other costs? You've got to redesign the handset.
6 You're going to have a brand new handset. Manufacturers are
7 going to want to make a profit on the GPS handsets. They're
8 going to differentiate them. The real cost to the consumer
9 is not \$7 to \$10, and when someone tells you that it's \$7 to
10 \$10 or uses that number, it's extremely misleading. The
11 question that the Commission should be asking and I'm sure
12 the question that the carriers are asking is, what is the
13 price that the big handset manufacturers are going to be
14 charging me when it's all said and done and how much more do
15 I have to charge the consumer?

16 The question I'd like to ask, especially to the
17 assisted GPS proponents, is what can a consumer expect in
18 not very high volumes? What can they expect for the very
19 first unit that is going to be sold, so that you can comply
20 with the early start date? What kind of costs can you
21 expect there?

22 MR. CHADHA: This is Kanwar Chadha from Sirf. I
23 think that's an interesting question. Not very high
24 volumes, because, by the nature of this mandate, you will
25 get high volumes. And the handset providers will take that

1 into consideration when they're costing their handsets. And
2 carriers will take that into consideration when they're
3 selling their handsets.

4 I think there is an assumption made here that a
5 GPS handset, location based technology and handset is
6 somewhat equal to the network based. They are not. A
7 consumer gets more when they get new handset, which they can
8 use not only for an emergency response, but for some other
9 features.

10 If you look at the trend in consumer buying of
11 handsets today, lot of times carriers are offering them free
12 handsets, but AT&T's example of one plan, you know, one of
13 the most popular forms is the Nokia 6160, which is not a
14 free handset. I think the consumer pays for the capability
15 they get, and that's what you need to keep in mind. If you
16 make the handset smarter over a period of time, subsidy will
17 come from consumers paying somewhat from it, the carrier
18 adding some location services on it, so they can provide
19 more value-related services, which will subsidize the
20 handset. Nobody buys handsets at price today. I agree with
21 you that the \$5 to \$10 figure we are talking about is the
22 cost of handset. The consumer can probably get it for free.

23 MR. KAHAN: Does that mean the handset people are
24 waiving the right to cost recovery and that's a totally
25 irrelevant issue so that the Commission can now go write

1 rules that basically say if you're going to adopt a handset
2 solution, cost recovery is absolutely not required?

3 MR. CHADHA: No, what it means is that over a
4 period of time, technology has a way of reducing the costs,
5 silicon has a way of reducing the cost. So you have to look
6 at the long-term volume implications and cost the handsets
7 accordingly.

8 You can't say that, you know, you're going to put
9 it in ten sets and that should create the cost model. The
10 cost model has to be created looking at the long term
11 implications.

12 MR. BELL: I should add that we are working with
13 carriers in Europe and Japan that have no FCC mandate and
14 yet, they are moving very aggressively to incorporate GPS
15 into their mobile devices and their handsets. They have no
16 cost recovery mechanism. They see their cost recovery as
17 the ability to do applications based off the high accuracy
18 of this system.

19 MR. RUDOKAS: I think I have to make a comment
20 here. I find it very humorous that a group that does not
21 contact the customer and really doesn't have any way of
22 getting feedback from a customer is so clearly knowing what
23 the customer wants.

24 I think that it's really the operator's issue.
25 Now, earlier, it was pointed out to us that there are

1 solutions available. Here are solutions to this problem.
2 Why have the operators not stepped forward and taken
3 advantage of these solutions to provide the additional
4 services and the obvious benefit to the consumer that we can
5 get with the services, as pointed out to us earlier?

6 I think the issue is that there's really some
7 ambiguity in what it would take to comply with the FCC rules
8 that we have today. The reason you can have operators in
9 Europe moving so aggressively towards this issue is that
10 it's the best effort sort of thing for those guys. They do
11 not have to meet a particular mandate to provide a
12 particular kind of service.

13 Now, I still, after hearing everything I've heard
14 here, do not understand how I would deal with understanding
15 if I've met the FCC rules. I could do all my testing inside
16 of rooms like this and by God, GPS or handset based
17 solutions will not work.

18 I could do all my testing using areas that are
19 served by enhancers and the only thing I will locate is the
20 enhancer. I won't know where the handset is. There are a
21 number of solutions. But what is the resolution that are
22 not defined and do not have a solution that would make it
23 possible for a carrier in good faith to deploy a technique
24 or a technology with no guarantee of any kind of cost
25 recovery, because there has been no cost recovery for

1 anybody to date and no guarantee that, in the end, this
2 solution will truly provide the kind of service that the FCC
3 would like us to provide?

4 I think that what we need to do is we need to find
5 a way to get some clarification of what it is that we really
6 need to do. How do we know whether we've complied with
7 these particular rules. How do we deal with the issues of
8 reliability, responsibility and cost recovery? How do I
9 deal with the issues of a GPS-enabled handset roaming in a
10 market that happens to pick a network solution and vice
11 versa? There's a lot of issues here that I think there are
12 no answers, but they're not technology issues. We have the
13 technology. We can make this work. We don't know what to
14 do right now. That's the issue.

15 MR. NIXON: Just a kind of second carrier opinion
16 here. Omnipoint, at this point, prefers a network solution
17 simply because it is available. We can roll it out. We
18 believe the costs are equal to the handset solutions, once
19 you look at all the marketing, consumer education, the
20 distribution chain impacts for trying to swap phones out,
21 trying to identify which customers have the old phones,
22 particularly if there were some mandates put on what dates,
23 specific dates you have to achieve particular goals.

24 There's a large administrative cost there that I
25 think we need to consider, as well. But that does not mean

1 that Omnipoint is not going to continue to research and try
2 and find the best possible solutions for ourselves, for our
3 other GSM carriers and for all of our customers.

4 The comment earlier, I think Mr. Smith made
5 about -- or, forgive me if I've misquoted, but that there
6 was -- he was pleased with the commitment that he sees here
7 from carriers to try and meet 100 percent location
8 capability, rather than the 67 percent. Anyone who's
9 participated in the -- we had the NENA Technical Development
10 Conference, a lot of the discussions that occurred and the
11 various carrier working groups that are talking about these
12 things knows that both public safety and the carriers
13 generally are committed to doing a good job on this as fast
14 as they can. We can do it and we think we ought to press
15 forward with it.

16 If, however, the Commission decides that it's
17 better for technical neutrality to allow waivers, we would
18 urge you to look at the other issues that grow out of that,
19 particularly the liability issue that grows out of creating
20 a second class of service for some customers who can't
21 afford to upgrade their handsets, even with carrier
22 subsidies that might be offered.

23 We think there's a significant liability concern
24 there and if the Commission decides to grant waivers, they
25 ought to seriously consider how they're going to provide

1 liability protection for those claims. I think that my
2 final comment here is that this whole basic issue in 94-102
3 came down to an economic decision for the PSAPs. They are
4 allowed to request the service, so they start this whole
5 thing, this whole process off, provided that they can use
6 the data and that they can pay for it through cost recovery.
7 They need a lot of help to get legislative infrastructure
8 costs within the land line portion of the 911 network,
9 mapping and other background and support services that are
10 simply not required before you get to this level of
11 sophistication with wireless technology. And I think that
12 we would do ourselves a big favor if we would put more
13 effort into supporting public safety and getting those kinds
14 of capabilities in place so that they can request the
15 service.

16 MR. HATFIELD: If I could, there's a few people
17 that haven't had a chance to speak here and we're running up
18 on the ending time, and before I did, I wanted to give a
19 chance to people who've not had a chance to speak, that
20 opportunity now. Yes, please?

21 MR. SRINIVASIAH: Yes, this is Bhaskar Srinivasiah
22 from GTE Wireless. I think earlier on there was a comment
23 made that various solutions are available. It's a matter of
24 determining what works best and a difference of consensus.

25 GTE Wireless is a CDMA carrier and I don't believe

1 that there's a network based product today that works in the
2 CDMA environment that one can trial with. GTE Wireless, I
3 think you heard earlier today, that we have been
4 participating, assisting the various providers with
5 solutions to determine what technology works under the
6 consensus. And we'd like to do the same thing with the
7 network based product for CDMA. And I haven't heard any
8 dates and how soon that would be available that we can do
9 that.

10 DR. HILSENATH: This is Oliver Hilsenrath, U.S.
11 Wireless. You weren't there at the last CDG event in
12 Baltimore, but your colleagues were there. First of all,
13 U.S. Wireless presented extensive field trials of CDMA radio
14 camera. I'd be happy to, if your colleagues didn't update
15 you, to give you an update of that event.

16 MR. SRINIVASIAH: We would definitely like to see
17 those results as part of the CDG efforts.

18 DR. HILSENATH: Our Bell Atlantic activity is
19 part of the CDG activities, designated trial, as part of
20 covered by CDG, Bell Atlantic happens to be the lead of the
21 location forum there. So I think the statement is
22 incorrect.

23 MR. SRINIVASIAH: Well, the last time we had
24 talked about this with our colleagues at Bell Atlantic, the
25 CDMA results were not available yet, and this is like three

1 months old.

2 DR. HILSENATH: Baltimore, I believe, the event
3 at Baltimore was in July. You're welcome, there's a GTE
4 network where our offices are, welcoming you to take a look
5 at the results.

6 MR. SRINIVASIAH: I am definitely encouraged to
7 definitely look at those.

8 DR. HILSENATH: Secondly, we also submitted a CDG
9 schedule of the availability of the dual modes for camera
10 and CDMA, under the understanding that the carrier will not
11 be able to roll out one without the other, including the
12 carrier like GTE.

13 So my message is, network solutions do have --
14 U.S. Wireless, as part of the network solutions team -- does
15 have a solution for CDMA. I can't see any reason to assume
16 that network solutions are not going to cover CDMA. I think
17 it's a myth and it's behind us already.

18 MR. SRINIVASIAH: I would like to say that is not
19 the intent of what I was going to say. I'd like to see the
20 trial results, how soon we can get to trial a solution like
21 that from CDMA.

22 MR. HATFIELD: We're drawing up here on time.
23 Nokia or Ericsson, did you have any comments?

24 MS. SILLANPAA: Does this work? Can you hear me?
25 So I am Anna Sillanpaa from Nokia. Nokia does handsets for

1 all these technologies and CDMA IS95 and GSM. And we are
2 looking with all the relevant industries to come up with the
3 best solutions for the carriers and for the great public
4 community.

5 I just want to comment a little bit about this
6 related to what Omnipoint maybe said. Nokia is the world's
7 second largest infrastructure manufacturer and we have
8 looked very carefully at the policies of the TOA and E-OTD
9 methods. And we see things a little bit differently than
10 maybe Omnipoint. We believe looking at the hardware that is
11 needed and the software, but especially, the differences are
12 greater on the hardware side. So we believe that E-OTD is
13 less costly.

14 Then, also, on the roaming issues. I would also
15 like to clarify that in most situations, when you use the
16 triangulation method, you still can have additional means to
17 improve the accuracy, even if you cannot have, for example,
18 three or more sites to locate the handset. So the situation
19 is not that you either can locate the subscriber or you
20 cannot locate. You can, with these additional means, you
21 can improve the cell ID quite a bit. So it's not a question
22 that you have location or no location. You will be getting
23 much better accuracy than cell ID in most cases, in any
24 cases, even if the triangulation fails. That's the case for
25 roaming subscribers.

1 But there are also other possibilities, at least
2 within the global GSM community, the E-OTD has been selected
3 as very widely supported method. So it is very likely that
4 most of the handset vendors will implement it later on for
5 commercial purposes. So it may not be such a black and
6 white issue. Thank you.

7 MR. HATFIELD: Did you have a final?

8 MR. CEDERVALL: I'm Mats Cedervall from Ericsson.
9 We started looking at positioning. We followed the regional
10 FCC rules and therefore, we considered network solutions.
11 And in GSM, we have followed the standard session and
12 currently, the network solution is standardized. If that's
13 what our customer wants, that is what we will provide.

14 As Lou Stilp said for amps and TDMA, we have a
15 networked solution and a joint development with
16 TruePosition. But for CDMA, we see that the network
17 solution can be quite complex and might not provide the
18 performance that is needed. So for CDMA, we would actually
19 prefer a handset solution.

20 MR. HATFIELD: Is there anybody else?

21 MR. MONTGOMERY: Bob Montgomery from Nextel. One
22 question we did not have an opportunity to discuss was the
23 location accuracy and one of the concerns I do have is how
24 are we going to measure this 125 meters, specifically when
25 you have carriers like ourselves that operate in multiple

1 environments and hold us to 125 meters? We didn't get an
2 opportunity to discuss that, and I think that's something
3 that we need to discuss in the future.

4 MR. SUGRUE: Well, I'll ask one last question.
5 Maybe there's a quick answer to it. Bob Miller talked about
6 being neutral for public safety and let me take a slightly
7 different cut at that.

8 Are all these technologies transparent to the
9 public safety people, I mean, that deliver -- does it impact
10 on what you have to invest in or what the public safety
11 answering people have to do, depending on which approach is
12 taken?

13 MR. MILLER: We have really never cared what
14 technology. We just simply want to locate all calls,
15 including the N-initialized phone that the Commission wants
16 us to handle. We certainly want to handle the roamers. We
17 don't want a person to have a phone, no matter how great it
18 is, that works in one state but not another state, so these
19 are our issues.

20 You know, again, we don't care what technology.
21 You know, this reverse TDOA, per se, I didn't hear about
22 that until today and maybe next year we'll have another
23 technology. It's just that we know we can locate -- maybe
24 we won't locate every phone by 2001, but we know we can
25 locate a lot of them.

1 MR. SUGRUE: Right, so, regardless of what
2 technology is picked, there's not a cost impact one way or
3 the other on the public?

4 MR. MILLER: Well, I think it depends on the issue
5 that Jim brought up, cost recovery, you know. You may have
6 to clarify that issue. I don't get the same read that Jim
7 has that public safety's got to pay. I saw you saying
8 there's got to be cost recovery for the carriers.

9 Now, if you're just going to do cost recovery for
10 the new sets, that's one thing. But if you're going to do
11 cost recovery for all phones, including the embedded base,
12 and at some point in time we trade them out, that's another
13 issue.

14 So if you compare apples with apples, you know,
15 that's what we want, and I don't think it would matter a bit
16 to us.

17 MR. SUGRUE: Joe?

18 MR. HANNA: I think sharing some of Bob's
19 concerns, the most critical issue for those of us who run
20 these centers, we want to locate the call. How the call
21 gets there, how the information gets there is somewhat
22 academic, as long as it comes in a standard format and then
23 that becomes the key.

24 Under the current rule, there certainly are some
25 issues, with implementation and cost issues, and I think

1 that's part of what this debate is all about. There
2 certainly are issues as the rule is currently interpreted,
3 as to how many people will be able to fully implement
4 systems under the current guidelines and that becomes one of
5 the issues we're trying to address here.

6 So what we're looking for is not really a
7 technology issue, it's a movement issue. How do we move
8 this process so that October 1, 2001 or whatever the date
9 is, that we begin to see some progress. That's really, I
10 think, what this issue is all about.

11 MR. MILLER: You're going to get back to us on the
12 cost recovery issue, right?

13 MR. SUGRUE: Sure, you bet. We've got it worked
14 out.

15 MR. HATFIELD: Any closing comments?

16 MR. RUDOKAS: Can I make two comments on cost
17 recovery? One of them is, in a rural area, where we have
18 very large cell sites that cover 1,000 square miles or such,
19 it might be very difficult to figure out how one would pay
20 for the equipment infrastructure, equipment to provide
21 service in that area.

22 At the same time, it would be difficult to
23 understand how we would be able to swap out all the handsets
24 of our subscribers and pay for that.

25 The other issue is in urban areas. I wonder what

1 the issue is, or can we afford, as a nation, to build six or
2 so overlapping location systems that all service the same
3 area, and service essentially one population base? We may
4 have six competing carriers in that area. It's very
5 difficult to understand how that could actually work in an
6 economic sense in large metro areas.

7 MR. HATFIELD: I'm really afraid we're running out
8 of time here for a number of reasons. So Tom, Jim, do you
9 have any further comment? I will remind you all that there
10 is an opportunity for those in the audience who didn't get
11 to participate to -- either on an ex parte basis or in
12 response to the public notice, make further comments.
13 Anything else?

14 If not, I'll just close by thanking you all again
15 for coming here today. I think from my standpoint, at
16 least, it's been very, very beneficial and, again, thank
17 you.

18 (Whereupon, at 5:06 p.m., the hearing was
19 concluded.)

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REPORTER'S CERTIFICATE

FCC DOCKET NO.: N/A
CASE TITLE: E-911 AUTOMATIC LOCATION
HEARING DATE: June 28, 1999
LOCATION: Washington, D.C.

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Federal Communications Commission.

Date:

6/28/99

Sharon Bell
Official Reporter
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I hereby certify that the proceedings and evidence were fully and accurately transcribed from the tapes and notes provided by the above named reporter in the above case before the Federal Communications Commission.

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I hereby certify that the transcript of the proceedings and evidence in the above referenced case that was held before the Federal Communications Commission was proofread on the date specified below.

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