

1 was called as a witness for and on behalf of the Defense, and  
2 after being first duly sworn, was examined and testified as  
3 follows:

4 DIRECT EXAMINATION

5 BY MR. ABERNATHY:

6 Q Dr. Steffus, would you please tell the ladies and  
7 gentlemen of the jury who you are and where you are employed?

8 A My name is Paul Steffus, and I am a professor of  
9 electrical and computer engineering at the Georgia Institute  
10 of Technology.

11 Q What we commonly call Georgia Tech?

12 A Yes, sir.

13 Q All right. How long have you been so employed?

14 A I have been a professor for nineteen years.

15 Q At Georgia Tech?

16 A Yes, sir.

17 Q Well, let me take you back to your educational  
18 background for just a moment. First of all, how old are you,  
19 Dr. Steffus?

20 A Forty-six.

21 Q Now tell the ladies and gentlemen about your  
22 educational background.

23 A I received my Bachelor's and Master's in 1977 from  
24 MIT, the Massachusetts Institute of Technology. Then I did  
25 some industry work and completed my Ph.d. subsequently in

1 1982 at Stanford University in Stanford, California.

2 Q Stanford University. And let's talk about your  
3 employment history for some time.

4 A Uh-huh.

5 Q Now where were you first employed?

6 A I was employed in high school and that sort of  
7 thing working at a --

8 Q In your professional capacity?

9 A Professional? I started in 1977 working for the  
10 Watkins-Johnson Company which is a company that builds radio  
11 receiver systems specifically designed to determine the  
12 position and the nature of radio signals that were emanated  
13 and monitored for military reasons. So it was communications  
14 intercepts and radar information intercepts.

15 Q Something just caught my attention. You said you  
16 graduated from MIT?

17 A Yes, sir.

18 Q Do you know what the number one engineering school  
19 in the nation is?

20 A Yes, sir, I do. In the latest U.S. News World  
21 rankings, it was MIT.

22 Q I just thought I would let you throw that in.

23 A But Georgia Tech was number five.

24 Q Number five. All right.

25 A Yes, sir.

1 Q Now we are proud of that too. Where did you -- how  
2 long were you at this first place of employment?

3 A I worked at Watkins-Johnson Company for five years  
4 and also attended school during that time to complete my  
5 Ph.d.

6 Q And that would have been through, I think you said,  
7 around '77. So about '82?

8 A Yes, sir.

9 Q And where were you employed after that?

10 A After that I took an assistant professorship  
11 beginning as an assistant professor at Georgia Tech in  
12 Atlanta. And then over the subsequent six years was promoted  
13 to an associate professor, and then in 1994 was promoted to  
14 full professor.

15 Q Full professor in '94?

16 A Yes, sir.

17 Q And can you give us a little bit about your  
18 experience in electrical engineering?

19 A Yes. My experience involves radio systems and  
20 radio science. The techniques to measure radio signals and  
21 from that either infer information about the nature of the  
22 medium or the material or the property for which the radio  
23 wave propagates or also to determine positions of radio  
24 transmitters. We have done a lot of research in finding out  
25 how to target sources of interferences to satellites and also

1 involve tracking of space craft with radio systems.

2 Q Tracking of space crafts?

3 A Uh-huh.

4 Q Have you been involved in any patents?

5 A Yes. Most of my patent involvement though is  
6 involved using infrared which is a type of electromagnetic  
7 waves that are radio waves and there are wave lengths which  
8 are a little shorter that are called infrared waves, using  
9 infrared waves to measure glucose in the human eye without  
10 actually going into the eye but measuring it remotely using  
11 the infrared radio -- or actually say infrared  
12 electromagnetic waves.

13 Q All right. And have you had any journals  
14 published? any publications at all?

15 A Yes. I have published right now over 80  
16 publications in conference journals and referee journal  
17 publications. A report that I was responsible for was  
18 recently published by the National Academy of Sciences. So I  
19 have published quite extensively in the field of radio  
20 science.

21 Q Now are you -- do you know Mr. -- I think it is  
22 Marc Bahn?

23 A No. I have never met him. I know of him. But,  
24 no, I have never met him.

25 Q All right. And do you know a Dr. Lee. He had a

1 book that --

2 A Yes. C. Y. Lee who is a renowned -- he is a  
3 visionary in the cellular phone industry. He is involved  
4 with radio propagation models, also the economic of cell  
5 systems and the design of cellular phone systems.

6 Q And are you familiar with his software packages,  
7 computer programs and diagrams?

8 A In general, yes.

9 Q All right.

10 A I haven't read all his software, meaning I haven't  
11 inspected it line by line, but I know the software, the type  
12 of software.

13 Q All right. And do you recall me contacting you  
14 about this case?

15 A Yes, sir, I do.

16 Q And what documents have you reviewed in regards to  
17 this case?

18 A I reviewed a listing of telephone calls that were  
19 provided by Verizon Wireless as to times and cell tower  
20 numbers to which telephone calls originated. I also received  
21 five maps that were provided by Verizon Wireless. They were  
22 e-mailed to me by yourself, by Mr. -- by Rex -- by the  
23 attorney asking the questions, and basically those five maps  
24 and the cell record is the material that I received.

25 Q All right. Let me show you what has been marked

1 State's Exhibit 29, 28 and 30 and see if you can identify  
2 that these are the maps that you have looked at.

3 A Yes, sir, these are the maps I have looked at.

4 Q Let me ask you before we get off talking about the  
5 maps, have you testified in Court before?

6 A Yes, sir, I have.

7 Q All right. And I think you were involved in a  
8 similar case involving cell phones in the State of Georgia  
9 that went up to the Supreme Court; is that correct?

10 A That's correct. I provided testimony in the case  
11 against a gentleman whose last name was Pullen in Pullen  
12 versus Georgia. I am sorry. It was DeKalb County versus  
13 Pullen, but I don't remember the exact title of the Supreme  
14 Court case. I provided testimony in pre-trial hearings which  
15 established the validity of cell phone information in order  
16 to determine the location of a handset that was, you know,  
17 communicating with a cell tower. And then subsequently after  
18 the Supreme Court decision approving this sort of evidence in  
19 cases of scientific evidence, I provided testimony as to the  
20 position of the handset or cell phone that was -- well, at  
21 the time was used in the commission or adjacent to the  
22 commission of a crime.

23 Q Okay. Have you ever testified for the defense in a  
24 case?

25 A No, I have never testified for the defense. I have

1 always been involved with DeKalb County prosecution.

2 Q Have you worked hand-in-hand with the police in  
3 DeKalb County?

4 A Yes, sir, I have. I have worked extensively with  
5 the DeKalb County Police.

6 Q Well, let's go back just a moment to the documents  
7 you looked at. You say you looked at the maps provided by  
8 Verizon?

9 A That's correct.

10 Q Did you have an occasion to visit the courthouse  
11 here with me --

12 A Yes, sir.

13 Q -- on occasion and look at a big map?

14 A Yes, sir, I did.

15 Q Okay. You looked at that map. And since that  
16 time, do you recall that big map?

17 A Yes. It is very similar to the maps we saw here;  
18 right?

19 Q It is pretty much just like these maps?

20 A That's correct.

21 Q All right.

22 A Nothing -- no major differences, no. Not to my  
23 memory.

24 Q All right. And when you examined these maps, have  
25 you gone out and stopped at say the Kingston Tower and looked

1 at the other towers?

2 A Yes. That is correct. I have visited most of the  
3 locations that are listed on these maps.

4 Q Okay. Are you familiar with the Rome area?

5 A Yes, sir, I am.

6 Q Do you have relatives or friends here --

7 A My wife's sister lives just east of town.

8 Q Okay. Let's talk about the Kingston tower. What  
9 kind of tower is that?

10 A It is a fairly tall tower. It is over 400 feet.  
11 It is very close to Highway 411. The actual structure it is  
12 like a single pole type structure. It is not a lattice  
13 tower. It is high. It has a typical, you know, cell phone  
14 structure on it meaning three banks of antennas for the  
15 various sectors that it covers.

16 Q It covers a triangular sector?

17 A Well, yes, it is a triangular shaped antenna, but  
18 the sectors are pie-shaped, each 120 degree in width.

19 Q All right. And you say it is not a lattice tower.  
20 What type tower is it?

21 A I mean it is a solid structure tower. I mean the  
22 mechanics of it are not my specialty.

23 Q Have you looked -- and have you looked at the  
24 Turner-McCall tower?

25 A Yeah, I have been by it, and again, it just looked



1 like another cell tower. I mean it was nothing unusual.

2 Q Do you know the height of it?

3 A As I remember, it is in the 280 foot range.

4 Q 280?

5 A In that range, yes. I mean the exact number, it  
6 may be 250 too, but in the 220 to 300 range.

7 Q Okay. And the -- what is known -- Mt. Alto tower,  
8 what is known as the --

9 A Right.

10 Q -- Rome tower?

11 A Right, right. And I have only seen that from the  
12 hillside. I haven't gone up to the base of the tower.

13 Q Is it a lattice tower?

14 A It appeared to be.

15 Q What does that mean? lattice tower?

16 A That just means that the tower is structured with a  
17 metallic lattice just to provide physical strength to the  
18 support legs of the tower. That has got nothing to do with  
19 the radio performance of the tower.

20 Q Okay. Now your -- and you have examined certain  
21 telephone records?

22 A Yes, sir.

23 Q Of a particular cell phone record, 506-1457?

24 A That is correct, uh-huh.

25 Q All right. And let me show you a diagram that Ms.

1 Colston has drawn here referring to January 11th, mobile to  
2 mobile and so forth, mobile to land. What I specifically  
3 want to talk about and I will not write on this chart,  
4 because it is Ms. Colston's. But do you recall looking at  
5 the phone call made at 1915, which would be 7:15 p.m. Do you  
6 recall that?

7 A Yes, I do.

8 Q And it lasted for four minutes and 23 seconds?

9 A That is what is the record, correct.

10 Q I am not trying to lead. I am just rushing, Ms.  
11 Colston. On this four minute and 23 second telephone call,  
12 what tower was that picked up by?

13 A It was picked up by the Kingston tower.

14 Q All right. And you have examined the maps and  
15 looked at the --

16 A Yes.

17 Q -- information provided?

18 A Yes, I have.

19 Q Is there any way -- is it possible that that cell  
20 phone, 506-1457, could have been down around -- you have  
21 driven down to the murder scene?

22 A Yes, sir, I have.

23 Q Is there any way a phone call could have been made  
24 from there at 7:15 on that phone -- on that cell phone?

25 A The time is immaterial. The point is that assuming

1 that the other towers were functioning -- they were not shut  
2 off -- and assuming there was no extreme effort on the part  
3 of the cell phone operator; that is, whoever was using their  
4 cell phone standing on top of their truck or car and making  
5 sure that both of the other towers were shut off, there would  
6 be no chance that that call could have originated on U.S. 27  
7 in the area north of the college at Floyd College. There is  
8 just too many hills in the way.

9 Q Okay. And do you have an opinion, Dr. Steffus,  
10 were the other towers working by looking at these records?

11 A It appears that they were functioning in a normal  
12 manner. Again, obviously those working at Verizon would have  
13 a better estimate, but in terms of functionality, the  
14 evidence is that the towers were functional at that time.

15 Q And, Dr. Steffus, other cases that you have been  
16 involved in, we have talked some about sectors?

17 A Yes.

18 Q Are you familiar with sectors?

19 A Yes, I am.

20 Q And is there any way with the data provided by  
21 Verizon that you could detect what sector these phone calls  
22 were made from?

23 A Unfortunately not. Verizon was not -- I have been  
24 told by the Verizon representative indirectly -- actually I  
25 was -- I believe it was either a teleconference or it was in

1 a transcript of an interview with the Verizon representative.  
2 But they were not able to bring back from the records the  
3 sector information.

4 Q And as far as the Kingston tower area --

5 A Yes, sir.

6 Q -- have you examined --you say you are familiar  
7 with the Rome area?

8 A Yes, sir.

9 Q Have you examined the map and compared it to the  
10 maps provided by Verizon?

11 A Yes, sir, I have.

12 Q And are you familiar with the area --

13 A Of the Kingston tower?

14 Q -- of the Kingston tower coverage?

15 A Yes, sir.

16 Q And it is your testimony to this jury that there is  
17 no way that a 7:15 phone call made -- how far south on 27  
18 could a phone call be made?

19 A Nowhere south of the part of 27 where no limited  
20 access, you know, where -- meaning like a freeway and it  
21 changes to a surface road -- nowhere south of there would the  
22 other two towers in a functional state, would one be able to  
23 originate a phone call to the Kingston tower from there.

24 Q No way?

25 A No way. Now again, you know, you are at the limits

1 of the physical principle, which would say that you might be  
2 able to do it again if you shut off the other towers, shut  
3 off their receivers and if you made extreme efforts but  
4 except something short of that, meaning, you know --

5 Q When you mean extreme efforts, what are you talking  
6 about?

7 A Constructing a large reflector on one of the local  
8 hilltops and orienting the vehicle so that it was in  
9 traingulo-position so that the radio wave would bounce off  
10 that and hit the tower.

11 Q No way I could do it unless I could do all those  
12 things you just described?

13 A It is not likely.

14 MR. ABERNATHY: That is all I have. Ms. Colston  
15 may have -- do you need this, Ms. Colston?

16 MS. COLSTON: Yes, sir.

17 \*\*\*\*\*

18 CROSS-EXAMINATION

19 BY MS. COLSTON:

20 Q Dr. Steffus, --

21 A Yes.

22 Q -- Tami Colston. I think that you came in and  
23 looked at that map in my office that day. The tower that is  
24 on the cell phone record that you looked at, that is the  
25 tower that you -- the person was standing at when they hit

1 the send button; is that right?

2 A That is correct. It was the initiation connection.

3 Q And what tower is going to pick them up depends --  
4 if you have looked at the maps, and you don't disagree with  
5 the maps that Marc Bahn produced with the software; do you?

6 A No, within the resolution of the maps. Again, you  
7 have to remember that the boundaries are a little fuzzy  
8 because this is done from software simulation.

9 Q Right.

10 A But, no, it is fairly accurate.

11 Q So the boundaries could be a little fuzzy, so which  
12 means if you are at the boundary line or you are close to the  
13 edge of an area, you could be picked up by either tower;  
14 correct?

15 A That is correct. That's correct, uh-huh.

16 Q If you are in the fringe area. And it also is  
17 going to depend on, Dr. Steffus, is it not the weather  
18 conditions at the time? That could affect the reception  
19 somewhat; couldn't it?

20 A Somewhat, yes. It is not dramatic with this  
21 system, because this was an 800 megahertz. We call a digital  
22 cellular system. It wasn't PCS, the new systems. And so a  
23 little less weather intensive, but, yes, minor differences.

24 Q Minor differences. And also the fact that there  
25 are no leaves on the trees you might get better reception

FORMA C-100 - LASER REPORTERS PAPER & MFG. CO. 800-826-6313

1 because there is more air flow and the waves will travel  
2 better?

3 A Right, right, right.

4 Q Correct?

5 A Right.

6 Q And would it matter also just little things like  
7 the windows up or down in a car, things like that?

8 A The windows wouldn't make hardly any difference at  
9 all, but the orientation of the vehicle would.

10 Q The orientation like the vehicle was up on a hill  
11 it might pick up better from a different --

12 A Sure.

13 Q -- tower or whatever?

14 A Uh-huh.

15 Q And if it was down in a valley, it wouldn't. And  
16 the white areas on the map that you looked at, those are  
17 called dead areas; right?

18 A Well, you could call them dead areas. They are not  
19 areas in which no coverage necessarily exists.

20 Q Understandably.

21 A It is areas in which coverage from a single tower  
22 cannot necessarily predominate.

23 Q All right. But they are called dead areas;  
24 correct?

25 A Right, because there is no guarantee, if you will,

1 based on the software model of the connection there. It  
2 doesn't mean you won't connect.

3 Q Right. But if you had connected a call in an area  
4 that had good service and you traveled a good way through one  
5 of those dead areas, the probability of dropping that call  
6 would be high; would it not?

7 A I -- well, it depends on the nature of high  
8 probability. Would it exceed fifty percent? Probably not.  
9 Would it -- and it also depends on the size of the dead zone  
10 and the nature of the dead zone.

11 Q Would you look at the size of the -- have you got  
12 the maps in front of you?

13 A Uh-huh.

14 Q Would you look at the size of the dead zone. Do  
15 you know where the bypass is on here?

16 A Yes.

17 Q Okay. Would you look at the size of that dead zone

18 --

19 A Uh-huh.

20 Q -- on the bypass. That is a fairly large dead  
21 zone; isn't it?

22 A Yes, it is, because it is a very low level piece of  
23 property or piece of land that was created by that creek in  
24 the Coosa River -- I am sorry -- I mean -- I think it was the

25 --



1 MR. ABERNATHY: Etowah.

2 Q Whatever river it is?

3 A Yeah, the -- yeah. I still --

4 Q That is all right. I know that you are not --

5 A But the riverbed that goes through there.

6 Q Right. And there are mountains on each side of the  
7 road there pretty much in that area; right?

8 A Yeah, but to be honest with you, the hills are  
9 steeper on the east side of the road than they are on the  
10 west side. I drove by there, and there is a fair amount of  
11 flat land to the west.

12 Q All right.

13 A So you are more likely to connect to a tower to the  
14 west.

15 Q To the west.

16 A Yes, ma'am.

17 Q Okay. So you are saying that --

18 A If you are traveling on the bypass -

19 Q So if you are on the bypass you might connect to a  
20 tower on the west, which would be the Tuner-McCall or the  
21 Rome tower?

22 A That's correct.

23 Q I see. So the dead area right there would possibly  
24 be areas where you connect to Turner-McCall or the Rome  
25 tower?

1           A     Well, or if you were on the other side of the dead  
2 area, meaning if you were on the western edge of the dead  
3 area which is, you know, closest to the hills.

4           Q     Uh-huh.

5           A     The western edge of the dead area is here.

6           Q     Uh-huh.

7           A     Then your chance would be more likely to pick up  
8 the Kingston tower. If you are on the eastern edge, which is  
9 the edge near these hills here, then you are more likely to  
10 pick up energy from either Turner-McCall or the Rome tower.

11          Q     Well, the area of this green right here, you  
12 understand that that is the Rome tower and that is toward  
13 Cartersville from the bypass; correct?

14          A     Right, right. But don't forget the road that goes  
15 through here. So there is --

16          Q     The roadbed that goes through there, but the bypass  
17 does not; does it? That bypass does not intersect that green  
18 right there; does it?

19          A     It appears to just minimally at one edge there.  
20 Again, you have to remember the resolution of this model is  
21 not that precise. Each of these little steps which is on the  
22 order of a hundred meters or -- you know, a hundred yards is  
23 the resolution element. And the precision with which one can  
24 predict the exact edge of a preferential area is somewhat  
25 limited. I mean based on our work with GPS satellites, we

1 like to quote 100 meters to 300 meters as being the accuracy  
2 of the edges.

3 Q I don't even know what my question was after that.

4 A I am sorry.

5 Q Let me see if I can make it simple. The white area  
6 right here along the bypass where there was a dead area --

7 A Yes, this area here.

8 Q -- that we are looking at here?

9 A This area here, yes.

10 Q Right here. The road runs pretty much through  
11 there; does it not?

12 A That is correct.

13 Q Okay. And you wouldn't dispute the fact that it is  
14 the Verizon man, the one that designed this system, told you  
15 that that is the reason they had to put a tower over here on  
16 the other side --

17 A Sure.

18 Q -- of the road was because they were having high  
19 probability of dropped calls right there?

20 A Sure, sure.

21 Q Okay. That wouldn't surprise you; would it?

22 A No, it wouldn't.

23 Q And this area right here is surrounded by pretty  
24 much red on every side and even a spot of red over here;  
25 correct?

1 A Oh, sure.

2 Q Okay. And that is the Kingston tower; correct?

3 A That coverage is from the Kingston tower; right.

4 Q And the Kingston tower extends down almost to  
5 Chulio Road, does it not? This area right here, the big red  
6 area?

7 A Yes. Right. That is because of the hill.

8 Q So you could still be picking up the Kingston tower  
9 close to the Chulio Road, couldn't you, Dr. Steffus?

10 A You could if you were on that structure --

11 MR. ABERNATHY: Your Honor, I object to  
12 mischaracterization. That is not down the Chulio Road.

13 MS. COLSTON: I mean close to the Chulio Road.

14 MR. ABERNATHY: Well, it is a good --

15 THE COURT: She has got him on cross.

16 MR. ABERNATHY: Well, I am talking about her  
17 question mischaracterizing the evidence.

18 THE COURT: Okay.

19 MR. ABERNATHY: She is testifying.

20 THE COURT: Of course, the jury will have it, and  
21 it is marked on there and they can take a look at it  
22 themselves.

23 A I guess the point I would like to make is that  
24 those red coverage areas that are shown there are on the  
25 sides of hills. So they are not blocked in their view of

1 that tower.

2 Q Right. So if you are topping the hill just as you  
3 are saying there, you could hit the send button there and  
4 that is a fairly large area there, is it not, of where you  
5 can hit the send button and you will pick up the Kingston  
6 tower when you are on down 27 toward the Chulio Road?

7 A Okay. It is not Route 27 I don't believe there.

8 Q 411, 27.

9 A 411, 27 and 20, yeah, I-20. I figure that as State  
10 Road 20. I wasn't aware that that was 27 in that section.

11 Q Well, it is not.

12 A But, yes, in that section on Route 20 there is the  
13 possibility of connecting with the Kingston tower.

14 MS. COLSTON: All right. Thank you.

15 THE COURT: Mr. Abernathy, any other questions of  
16 Dr. Steffus?

17 MR. ABERNATHY: Just maybe one.

18 \*\*\*\*\*

19 REDIRECT EXAMINATION

20 BY MR. ABERNATHY:

21 Q Looking at the map again, Dr. Steffus, and you said  
22 that red coverage, that is a ways up the Chulio Road toward  
23 Kingston. Do you see the road that goes through the red  
24 section?

25 A Yes, I do. I see --

1 Q What were you trying to tell Ms. Colston when you  
2 said that red is up on the hillside?

3 A What I was trying to show that there is a hill  
4 going north/south in that zone, and therefore, on the east  
5 side of the hill, the ability to pick up communication with  
6 the Kingston tower is very good. Similarly, these spots on  
7 the eastern slope of this range of hills here that run  
8 parallel to Rockmart Road are also -- it is possible for them  
9 to contact the Kingston tower because you are on the side of  
10 a high hill and you are facing the radio tower in Kingston.

11 Q But the area there that shows the road, it cuts  
12 through the hills; doesn't it? It is not up on the hill?

13 A Meaning this area -- this area here?

14 Q Where the road goes through the red spot there?

15 THE COURT: Are you talking about the bypass? What  
16 road?

17 MR. ABERNATHY: Yes.

18 A No, this is State Road 20.

19 Q You are talking about 20?

20 A Yeah.

21 Q What we call 411?

22 A He is referring to this red section on State Road  
23 20 that is -- I am sorry, Your Honor.

24 THE COURT: No, don't point it at me. The jury  
25 knows which road you are talking about.

1 A Yes. But regarding State Road 20, there is a --

2 Q State Road 20 marked on the map?

3 A Yes. There is kind of a dip and then a rise, and  
4 this would be on the rise section.

5 Q Okay. And you can see the bypass on there?

6 A Yes, sir.

7 Q And you can see Chulio Road?

8 A Yes, sir.

9 Q Is that place -- would you estimate that being  
10 about half between Chulio and the bypass?

11 A Yes, sir, that would be a good estimate, yes, sir.

12 MR. ABERNATHY: All right. Nothing else, Doctor.

13 Thank you.

14 \*\*\*\*\*

15 RE-CROSS-EXAMINATION

16 BY MS. COLSTON:

17 Q Have you driven that route, Dr. Steffus?

18 A I have not driven Chulio Road, but I have driven  
19 State Road 20 extensively.

20 Q With this map in your hand?

21 A Yes, sir -- yes, ma'am.

22 Q You have. And have you pinpointed that red area  
23 right there where the Kingston tower comes in --

24 A Yes.

25 Q -- intersects and hits that?

1 A Well, yes, as a matter of fact, I was driving down  
2 there and tried to measure signal levels when I left here  
3 last week.

4 Q Oh, you did?

5 A Well, I used a handset. The problem was the signal  
6 level from the new tower was dominate. So I was connecting  
7 with the new tower more readily. The new tower made it  
8 difficult to get a signal from Kingston.

9 Q So you don't know what the conditions were --

10 A Correct.

11 Q -- on January 11, 2000?

12 A Correct. Because this entire zone now is covered  
13 by the new tower.

14 Q But the fact remains that Highway 411 after you go  
15 through the bypass, there is still an area when you turn to  
16 the right and head toward town, that there is a good area,  
17 and the jury can see where it is at on the map as well as  
18 anybody can. But there is an area where you can still pick  
19 up the Kingston tower?

20 A That's correct.

21 MS. COLSTON: Thank you.

22 THE COURT: Anything else?

23 \*\*\*\*\*

24 REDIRECT EXAMINATION

25 BY MR. ABERNATHY: