

IN THE CIRCUIT COURT OF THE SIXTH JUDICIAL CIRCUIT OF
THE STATE FLORIDA, IN AND FOR PASCO COUNTY
CASE NO. CRC14-0216CFAES

STATE OF FLORIDA,

Plaintiff,

vs.

VOLUME IV

CURTIS J. REEVES,

Defendant.

PROCEEDINGS: Stand Your Ground Motion

DATE: February 21, 2017

BEFORE: The Honorable Susan Barthle
Circuit Court Judge

PLACE: Robert D. Sumner Judicial Center
38053 Live Oak Avenue
Dade City, Florida 33523

REPORTED BY: Charlene M. Eannel, RPR
Court Reporter
PAGES 373 - 475

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1 P-R-O-C-E-E-D-I-N-G-S

2 THE COURT: Are we ready to proceed?

3 MR. MARTIN: Could Counsel just have a few
4 minutes?

5 THE COURT: Sure.

6 DIRECT EXAMINATION CONTINUED

7 BY MR. ESCOBAR:

8 Q. Good afternoon, Mr. Koenig.

9 A. Good afternoon.

10 Q. Mr. Koenig, what is a digital image?

11 A. It's an image composed of unique separate
12 blocks of information or rectangles that are called
13 pixels.

14 Q. Okay.

15 A. And each one -- if it's a color picture, it's a
16 color. It's a certain brightness color. Or if it's a
17 black and white picture, it would be a certain range from
18 white to black, there might be a gray scale someplace.
19 And they're set in series of blocks in a mosaic next to
20 each other in the image file itself.

21 Q. Okay. Tell me, especially in this case on this
22 surveillance video, why is it that when you look at that,
23 it tends to be not as clear as we would like?

24 A. The main reason is small number of pixels. To
25 give you an idea, a 240-by-320 resolution, that's how

1 many pixels are across and down, okay.

2 Q. Is that the XY coordinate, kind of?

3 A. Yes.

4 Q. Okay.

5 A. There's about something over 76,000 pixels, so
6 you say, "Wow, that's a lot." Well, if you bought a
7 relatively inexpensive camera or used an iPhone, even an
8 older one, you would have 6 million pixels.

9 So what happens is that -- and yet most people
10 wouldn't say an iPhone picture is the greatest picture
11 they've ever seen in their life, but it's pretty good at
12 6 million. High-end cameras are more like 20 to 25
13 million, okay. This is 76,000.

14 Q. Okay. Please explain to the Court, if you can,
15 what you did in your forensic process to enhance this
16 video from the Cobb Theater.

17 A. Yes. One of the problems is that there was a
18 lot of dark areas in the theater. As I explained, you
19 can't improve the resolution. There's a certain amount
20 of pixels and you're stuck with that, so that's called a
21 shadow highlight tool in a Photoshop.

22 We didn't use the highlight. We used a shadow.
23 That means that only lightens the darker part of the
24 picture and leaves the rest of the picture the same. It
25 changes -- it doesn't change anything. It just lightens

1 it, so the darker areas are now easier to see and
2 everything else.

3 Second, the compression -- one of the factors
4 in here is it tends to lower the contrast. If you --

5 Q. Before we get to contrast, I've got a couple
6 more questions, if I can, with reference to the
7 shadowing.

8 A. Sure.

9 Q. If you're focusing on these darker areas and
10 you're lightening up these darker areas, is there a value
11 that can be ascertained by you or by anyone else as to
12 what you're doing with that lightening effect?

13 A. Oh, yes. The program itself gives you the
14 exact parameters which you have control over and tells
15 you exactly what you did.

16 In other words, we could give them the
17 parameters out of this, and anybody with Photoshop which,
18 you know, everybody uses can basically go in and imitate
19 what we do exactly.

20 Q. So ascertaining that value that you changed in
21 that shadowing effect, it's an important thing
22 forensically; is it not?

23 A. To -- I don't understand.

24 Q. To be able to ascertain the value.

25 A. Oh, well, that's always forensics. You've

1 always got to make it so it's -- that you can duplicate
2 it, somebody else can duplicate it.

3 Q. Okay. Now, let's get into contrast. I'm sorry
4 for interrupting you, but I wanted to make sure we had
5 that last question.

6 A. Some of the middle-range values would just --
7 they didn't differentiate well between different shades
8 of gray, so by adding some contrast to it that made those
9 a little more viewable, I would say.

10 And then lastly, we used a program that just
11 sharpens it slightly. I mean, there's a limit because of
12 the pixels, but it will sharpen edges and -- all that are
13 there. And, of course, you visually look at this as you
14 do the work to make sure it's not changing anything.

15 The other thing is that the final user of it
16 can always go back and look at the original and look at
17 the enhanced, and hopefully the enhanced helps look for
18 what -- you know, helps them see that better or easier.

19 Q. Now, the sharpening, you're not changing the
20 shape of the object at all; is that correct?

21 A. No, sir. It's mostly the lines would be more
22 definitive if they're already there.

23 Q. So the lines that are already there, you're
24 just sharpening those particular lines?

25 A. Yes. It's a slight thing. It's not a big, big

1 effect. It's kind of a minor effect, but it does help
2 somewhat.

3 Q. And that's all in dealing with the enhancement;
4 is that correct?

5 A. Yes, sir.

6 Q. There's something else that I want to focus on
7 before we get into enlargement is called content
8 highlight. What does that mean? I know it's a fairly
9 simplistic thing.

10 A. Yeah, it's what you often see on TV where they
11 show a video and they have a circle around the person if
12 they move because they want you to be able to say, "Hey,
13 that's how we do it."

14 The evening news will often have like, "Oh, we
15 have a suspect who robbed the bank or robbed the store,
16 and the police gave us this video," and either the police
17 or the news station does it.

18 They say, "Okay, look. There's other people
19 here. The person we want is this one," and they'll put a
20 circle around this person and then follow that person as
21 they go around in the video so that the person watching
22 it concentrates on that person, because the other people
23 are really not a factor because that's not what they're
24 looking for.

25 Q. Is that something that you also did in this

1 particular case?

2 A. Yes, sir.

3 Q. So you did -- for your enhancements, you did
4 the shadow highlighter, although you focused on the
5 shadow; is that correct?

6 A. Right. The highlighter would basically get
7 something really bright. In order to make it less
8 bright, that's what that would do, and that was really
9 not needed in these images.

10 Q. You did the increase of the contrast, the smart
11 sharpening and the content highlighting?

12 A. That's true.

13 Q. Okay. Now let's go to enlargement.

14 First, tell the Court why we would want to
15 enlarge an image.

16 A. These images are very small, so if you could
17 put them in a computer or something, they show up as
18 pretty small. So to make it easier for someone, you want
19 to be able to enlarge the image without changing it. In
20 other words, the enlarged image should look just as the
21 original.

22 Even with all its problems, it still doesn't
23 change anything. To do that, you have to be very careful
24 how you make the enlargement.

25 Q. Let's talk about why we have to be very careful

1 in order to do the enlargements.

2 A. Well, the only way -- if you take a pixel -- in
3 fact, can I draw it?

4 Q. Yes. I will get that for you right now.

5 MR. ESCOBAR: Can I, Your Honor?

6 THE COURT: Sure.

7 THE WITNESS: So what would you like to do?

8 I'm just going to put four pixels here. This would
9 be good for the whole thing --

10 THE COURT: Uh-hum.

11 THE WITNESS: -- but it's hard. You can't put
12 76,000 here. So if you have part of the picture
13 that's got four pixels, we will name them, A, B, C
14 and D. Now, I want to enlarge that so that it still
15 looks like that, but I have a bigger picture.

16 So let me -- so I've drawn -- gone from a
17 2-by-2 matrix or 4 pixels, 4-by-4 is 16, so I'm
18 going to put in what we originally had. We will
19 have A here, B here, C here and D here.

20 What you want to do is I want to imitate this,
21 so what I want to end up with is, I've taken each
22 pixel and now made a separate square with four
23 pixels that are all identical. So what happens is
24 this will be -- we call it either magnified twice or
25 I enlarged it by four times. It depends on how you

1 look at it.

2 So this would be, if you looked at this,
3 identical. In other words, this is just a bigger
4 area for A, but they're all the same, all B. If you
5 don't do that and you do something else, you can end
6 up with something that doesn't look like the
7 original at all.

8 BY MR. ESCOBAR:

9 Q. Okay. I'm going to have you stand up in a
10 second, but what is that process called?

11 A. This is the called Nearest Neighbor, so you
12 have two things you have to do. You have to use the
13 Nearest Neighbor -- that's just what that's called --
14 Nearest Neighbor, note 1.

15 Second, you have to go and multiply, that
16 square. The sides are the same, because if I said I want
17 to make this three times as big, you know, you couldn't
18 make a square, so you always have to have a square.

19 This square -- this is 2-by-2. You can make it
20 50-by-50, if you want, but it has to be that -- so it's
21 always multiples of -- you know, I always do the inner
22 just to square them.

23 So the first one is one square, which is 1; two
24 square, which is 4; and, you know, then you have three
25 squares, which is 5; four squares 16. 25. So you always

1 have to go up in these multiples. So you can't make an
2 enlargement that's 17 because then you wouldn't get
3 squares.

4 So this is a pretty well a forensic standard.
5 You can make the thing as big as you want, but it's
6 exactly the same as what you started with.

7 Q. Does it also provide you the ascertainable
8 values within the pixels themselves?

9 A. I don't understand the question.

10 Q. Well, you're getting more A's, correct, as a
11 result?

12 A. Yes, but these are all identical.

13 Q. Exactly, meaning you're not having to guess;
14 you know what's happening with the enlargement process --

15 A. Yes.

16 Q. -- is that correct?

17 A. Yes. It's very well defined, very
18 straightforward, you know. That's nothing complicated.

19 Q. And anyone can come in after your work and see
20 exactly what you did?

21 A. Sure. You can look at the enlargement and look
22 at the original. It should be identical under the size.

23 Q. And so you used this process in order to
24 enlarge the surveillance videos of the Cobb Theater?

25 A. Yes, the Q6, yes.

1 Q. The Q6. Okay. Tell me how you went about
2 doing that mechanically in the video itself.

3 A. Oh. You can take the -- we did it as an
4 individual bitmap images. That's an image of each image,
5 each frame, and we put it into Photoshop. You go in
6 there and say, "I want to do Nearest Neighbor and I want
7 to do this magnification."

8 As long as you keep it as -- you know, again,
9 magnification or whatever you want here, so it comes out
10 every time you have a square so the thing is always going
11 into a square. As long as you do those particular
12 magnifications, that's what you'll get.

13 Q. Now, what is interpolation?

14 A. Interpolation is that I'm going to enlarge it,
15 but I'm going to add a bunch of pixels that never existed
16 in the original.

17 Q. Explain that. If you want to, you can push
18 that over and --

19 A. Okay.

20 Well, I took my example here, 4A, B, C, D, and
21 then I went over from here to here. I will put
22 definitely A here, B here, C here, D here. Interpolation
23 means they use some mathematical situational algorithm,
24 as we call it, and they decide, Huh. This is A and B.
25 Maybe it's somewhere between A and B. Maybe it does it.

1 You don't know. Or maybe this one's here.

2 Does it really combine A, B, C, D? That
3 depends on the algorithm you use. So what you end up
4 with is all of these ones never existed in the original
5 image at all, some algorithm has decided what it is.

6 Q. And how does that correlate with what we were
7 talking about before of color and gray scale?

8 A. It -- every one of these is an unknown in the
9 sense that you only could repeat it by using the same
10 algorithm, but the algorithm does not tell you exactly
11 what you're going to do.

12 Q. So you really have no idea what either color or
13 gray scaling that algorithm is placing in those other
14 pixels?

15 A. I mean, you could look at them after the fact
16 and say it did this, but these are the only -- these
17 16 -- these 4 are the only ones that exist in the
18 original image. All of the rest, it's a guess.

19 Q. Okay. Now, did you use an interpolation method
20 to analyze these particular videos?

21 A. Well, that's not really an analysis for us.
22 You would enlarge them, and we certainly used the Nearest
23 Neighbor in those multiples to make sure we retained
24 everything.

25 Q. There's something called Bicubic -- I think

1 it's Bicubic and Bicubic Smoother?

2 A. Yes.

3 Q. Have you heard of that?

4 A. Yeah. That's one of the many algorithms that
5 will make these enlargements.

6 Q. Tell the Court, did you actually use that for
7 your enlargement of these particular videos?

8 A. We did not, no.

9 Q. Tell the Court why you didn't use that.

10 A. Well, you're making an enlargement that you
11 don't know what -- to give you an idea, our -- like I
12 said before, I think our 240-by-320 equals about 76,800.
13 I think that if you wanted to enlarge this to 2,000 by
14 3,000, that would be a 6 megapixel pixel, which is not
15 large so, you know. Your 2,000 by 3,000, that's going to
16 equal 6 million. Okay.

17 Well, using that interpolation meant you
18 started with 76,800, which they've retained those, but
19 they ended up with 6 million. That means of these
20 original pixels, we know what they are, and the final
21 product, it would only be 1.3 percent of your final
22 enlargement. The rest of it the computer added.

23 I think most people -- you know, my wife is an
24 artist, and most people look at this process, you know,
25 for their family pictures or whatever. It's okay to do

1 whatever you want. It's more of an artistic, you know,
2 characteristic.

3 I mean, it's kind of like you could put it in
4 Photoshop and say: I want it to look like an oil
5 painting, or I want it to look a like pen and ink type of
6 thing. The algorithm can make those changes.

7 This is a type of change, but what happens when
8 it does this -- the effect is you can change what the
9 original image looked like, sure. You tend to lose
10 detail, and it tends to soften the image.

11 Q. Now, we have a demonstrative piece here that we
12 used both the Nearest Neighbor as well as Bicubic
13 Smoother, correct?

14 A. Yes. It's on an actual image that's on the
15 video.

16 Q. Okay.

17 MR. ESCOBAR: Mr. Lacey, would you take us to
18 that demonstrative aid?

19 THE WITNESS: Okay. This is the original
20 image. As you can see, it doesn't have any pixels,
21 so Mr. Lacey could enlarge this.

22 Let's go down to the bottom right corner. I
23 think there's a nice easy thing here.

24 THE COURT: Is this supposed to be on mine as
25 well?

1 MR. ESCOBAR: It should be. It's supposed to
2 be.

3 THE COURT: What am I supposed to click on?

4 MR. ESCOBAR: I have no idea. We may need to
5 get an IT person here, because she was -- Your
6 Honor, if I can ask the Court to maybe step down
7 here, at least for this particular demonstrative
8 aid, that would certainly make it a lot easier for
9 the Court to view. She can do that remotely, I
10 think.

11 Thank you, Your Honor.

12 THE COURT: Uh-huh.

13 BY MR. ESCOBAR:

14 Q. Mr. Lacey, could you blow up this white area
15 right here? Okay.

16 Before we get started, all those little
17 squares, what -- tell the Court what those little squares
18 are.

19 A. These are the pixels I've been talking about,
20 okay.

21 THE COURT: Uh-huh.

22 THE WITNESS: Here is that white spot, you
23 know, that the Government and Defense are talking
24 about, or whatever it is.

25 THE COURT: Okay.

1 THE WITNESS: And you can kind of see what it
2 looks like. It's six pixels, total. The two middle
3 ones are on the bright side, so that's what we
4 started with. That's from the original video.

5 MR. ESCOBAR: Okay.

6 BY MR. ESCOBAR:

7 Q. Doug, what we can do -- if we could do Nearest
8 Neighbor for maybe four times, that same thing.

9 A. You can see we made it larger, but the same
10 thing.

11 Q. How about six times, Doug?

12 A. Pretty obvious. Just what I said is going to
13 happen has happened. Okay.

14 Q. Now, Bicubic Smoother that we've talked about,
15 interpolation, could we see that at four?

16 A. This would be same thing from before. Doesn't
17 really look like the original at all, no.

18 Q. How about six times, Doug?

19 A. So we've gone from a nice rectangle with
20 differentiation in the light in the middle. You can see
21 how it is, to something that kind of -- is fairly uniform
22 now, and it's, you know, maybe square-ish, maybe
23 rectangular, maybe circular. Depends on how you look at
24 the light, but that's what happens when you make that
25 kind of enlargement.

1 Now, if you wanted to do that for artistic
2 reasons, that's fine. But forensically, this changes
3 completely what the original image looked like.

4 Q. Doug, let's go back just briefly to the actual
5 Nearest Neighbor pixels at either 2 or 400.

6 Now, let me ask you a question: The fact that
7 we have here -- a 2-by-3 is a rectangle, correct?

8 A. Correct.

9 Q. Does that define what the shape of that object
10 necessarily is?

11 A. Only in a very general way.

12 Q. Okay.

13 A. Basically, you've got to sensor the camera
14 that's representing -- that picks up the light so it
15 doesn't really say: Well, what's the light up in this
16 corner of the pixels? It looks at the whole thing and
17 gives you that average, so it averages the light within
18 that square throughout.

19 So, you know, it generally shows kind of a
20 rectangular shape, but would it be the exact shape of it?
21 There's just not enough pixels.

22 Q. Okay. Thank you.

23 MR. MARTIN: Judge, at this time, the State is
24 going to request a copy of that demonstrative aid.

25 MR. ESCOBAR: We'll be more than happy to put

1 it on a thumb drive and give it to you.

2 THE COURT: Okay. Thank you.

3 MR. ESCOBAR: Here you go.

4 BY MR. ESCOBAR:

5 Q. Mr. Koenig --

6 MR. ESCOBAR: May I approach, Your Honor?

7 THE COURT: You may.

8 BY MR. ESCOBAR:

9 Q. Mr. Koenig, I'm going to show you what's been
10 marked as Defense Exhibit Number 27. It's two of them,
11 but they're duplicates. I just want you to focus on one
12 of them, and we'll pass the other one back to my table.

13 Do you recognize that particular exhibit?

14 A. Yes, sir. This is from -- it's a data DVD
15 containing a Quicktime Capital M, Capital O, Capital V
16 file. That's a video format, a common one, and it has a
17 timeline which includes some of the video from the time
18 the people -- the Defendant comes into the theater with
19 his wife and through the shooting and whatever details
20 are there.

21 It's not everything, but we followed the areas
22 that were generally used by the government's time -- in
23 other words, there's additional video, but it's
24 repetitious.

25 Q. Okay.

1 MR. ESCOBAR: Your Honor, before we get started
2 with that, just for the record, I'm handing
3 Mr. Martin his requested thumb drive.

4 THE COURT: Okay. Thank you.

5 BY MR. ESCOBAR:

6 Q. Does that exhibit fairly and accurately depict
7 what you did in both enlargement and enhancement of the
8 material found in Q6, which was the Cobb Theater video
9 surveillance image?

10 A. Yes.

11 Q. Okay.

12 MR. ESCOBAR: Your Honor, we would move, at
13 this point in time, Defense Exhibit Number 27 into
14 evidence.

15 THE COURT: What are we up to now?

16 THE CLERK: 10.

17 THE COURT: 10.

18 (Whereupon, Defense Exhibit 10 for
19 identification was received in evidence by the
20 Court.)

21 BY MR. ESCOBAR:

22 Q. Mr. Koenig, Exhibit Number 27, have we placed
23 that exhibit and the contents of this exhibit into the
24 computer for purposes of facilitating the playing today?

25 A. That would be fine.

1 Q. Have we done that?

2 A. Yes.

3 Q. Okay.

4 MR. ESCOBAR: Mr. Lacey, can you please play --
5 is Number 27 admitted in evidence as Number 10?

6 THE COURT: Correct.

7 MR. ESCOBAR: Your Honor, this is one -- just
8 so the Court knows before we get started, if we were
9 to play every segment of every video that we have
10 that's been enlarged and enhanced, we'd be here
11 until next week just doing that.

12 So what we're doing -- this is a timeline.
13 We're going to play the entire timeline and then
14 we're going to play various segments from different
15 work that was done on each and every DVD.

16 So I just wanted to let the Court know what
17 process we were going to use. It's still going to
18 be very long, but I'm trying to cut down some of the
19 time.

20 THE COURT: Okay.

21 MR. ESCOBAR: Go ahead.

22 (Video published for the Court.)

23 BY MR. ESCOBAR:

24 Q. Now, Mr. Koenig, while we're watching this
25 film, there appears to be some black files or images that

1 are appearing on the system with a, "No recording next
2 image in."

3 What is that?

4 A. All the areas where you see the black image,
5 some of them are very brief, but any of them over areas
6 where it shows a non-recording there, any areas over one
7 second, we put the message in there. The other ones were
8 too short to do it. You would never see this.

9 So this means because of the motion sensor in
10 the camera system and the video system, they did not
11 record during that time at all, so there's nothing to
12 show.

13 Q. So that's for the viewer's information, but
14 that is the amount of time that's lapsing between images?

15 A. Right. At the bottom is the, you know,
16 embedded time code time.

17 Q. Okay. Now we're seeing two screens. What does
18 that represent?

19 A. Well, it's -- I mean, two different cameras.
20 But Cam 11 and 12 in the theater itself.

21 Q. Where is Camera 11?

22 A. If you look towards back of the theater, it
23 would be in the back left; and 12 would be in the back
24 right.

25 Q. If you're looking at the actual screen of the

1 theater?

2 A. The other way around.

3 Q. Meaning number 11 would be to the right, number
4 12 would be to the left?

5 A. Correct.

6 Q. So you've gotten the image of both of those
7 particular cameras and placed them side by side?

8 A. Yes.

9 Q. In time sequence?

10 A. Correct.

11 Q. I see that the recording times for the next
12 frame are differing at this point in time between both of
13 those cameras.

14 A. Depends on the motion sensor and the operating
15 system on how it decides when to record and not record.

16 Q. So they have independent mechanisms to detect
17 motion?

18 A. Not only independent, but there are two
19 different locations looking at two different scenes from
20 different directions.

21 Q. Same theater, just two different --

22 A. Yes. If we had had access to the original
23 system with all the settings, at least we'd be able to
24 define how they had it set.

25 Q. We're going to talk about that, as you know,

1 later on.

2 MR. ESCOBAR: Thank you, Mr. Lacey.

3 May I approach, Your Honor?

4 THE COURT: You may.

5 BY MR. ESCOBAR:

6 Q. Mr. Koenig, I'm going to show you likewise
7 Exhibit -- Defense Exhibit Number 24. It is a duplicate
8 right behind it, and ask you if you're familiar with that
9 exhibit.

10 A. Yes, sir.

11 Q. What is that exhibit?

12 A. Give me a minute.

13 Q. Sure.

14 A. Certainly it's got -- it's a video DVD format.
15 It's got, obviously, title screens and all. It's got a
16 direct video copy of the 13:14:42.046 through
17 13:27:07.998 of Cam 11 on Q6, followed by a
18 two-times-sized video copy of that same area, Cam 11. An
19 enhanced two times, enlarged size, again, Cam 11 of that
20 same area.

21 Then it's -- the next one is enhanced two
22 times, but the center on the bottom right corner of the
23 video, the same period of time. Then four times resized
24 and enhanced, again, centered on the bottom right corner
25 of the video for the same period of time, again, Cam 11.

1 Half-speed video of that -- of the smaller
2 area, 13:26:12:742 through 13:27:87:998 Of Cam 11, again
3 half speed, enhanced four times in the right corner.

4 And then a 1280-by-960 size, enhanced,
5 repositioned half-speed in that one area and another one
6 at quarter speed.

7 Q. Okay. Can you give the date of that particular
8 video that appears on that exhibit itself? The date on
9 the DVD?

10 A. Oh. I'm Sorry. The date it was made?
11 2/10/2017.

12 Q. Okay. And does that fairly and accurately
13 depict your work in both enlargement and enhancement of
14 the original Cobb surveillance video located in Q6?

15 A. Yes, sir.

16 Q. Okay.

17 MR. ESCOBAR: Your Honor, we move to introduce
18 Exhibit 24. That would be, I believe, 11.

19 THE COURT: It will be admitted.

20 MR. ESCOBAR: Mr. Lacey. Mr. Lacey, could you
21 move up those three minutes now?

22 Okay. Mr. Lacey, could you now move it back to
23 Mr. Reeves coming back into the theater? Okay.

24 Let's go to the enhanced half-speed, Mr. Lacey.
25 Could we do that one more time? Thank you,

1 Mr. Lacey.

2 BY MR. ESCOBAR:

3 Q. Mr. Koenig, I'm going to show you now what's
4 been marked as Defense Exhibit Number 36 and ask you to
5 take a look at Defense Exhibit Number 36.

6 A. This is a data CD containing bitmaps.

7 Q. Explain to the Court again what a data CD is
8 and the processing of bitmaps.

9 A. Okay. There are two general types of CDs we
10 see in our field. One is audio; the same kind of thing
11 you can buy in the store with your favorite, you know,
12 recording artist on a CD, high quality.

13 The other type is data. You can just put any
14 kind of file you want on there up to its limit of 700
15 megabytes. So this is -- this contains a bunch of bitmap
16 files.

17 Q. And bitmaps, again, are the original image
18 files --

19 A. Yes.

20 Q. -- that are contained within a video that
21 follow one another?

22 A. That's correct.

23 Q. Okay.

24 MR. ESCOBAR: Your Honor, we would introduce at
25 this point in time Defense Exhibit Number 36. The

1 date of this is 2/19/17.

2 MR. MARTIN: I have two.

3 MR. ESCOBAR: We will sort it out with you.

4 THE COURT: What number?

5 THE CLERK: 12.

6 (Whereupon, Defense Exhibit 12 for
7 identification was received in evidence by the
8 Court.)

9 BY MR. ESCOBAR:

10 Q. Again, Mr. Koenig, on this particular exhibit,
11 has that exhibit been accurately copied onto the computer
12 for easy viewing here within the courtroom?

13 A. Yes, you could copy from a disk like that over
14 to something else perfectly.

15 Q. Okay. Before Mr. Lacey gets started, the
16 control of this process is much easier; is that correct?
17 The viewing process of the bitmaps; is that correct? You
18 can scroll forward, you can scroll backwards, you have
19 control of each individual video file?

20 A. Yes. You're seeing every frame or image that's
21 there one at a time, so you see what the actual image is.

22 When you run everything together, you got to
23 remember your mind is going to kind of smooth all of that
24 out. You'll miss things that aren't there very long, for
25 instance. So this gives you, at that instant of time, an

1 exact snapshot of what the video system recorded.

2 Q. And, again, this one here, if you were looking
3 at the theater screen, it's the camera on the wall up
4 high to your right?

5 A. Correct.

6 Q. Okay.

7 MR. ESCOBAR: Mr. Lacey, can you zoom that up,
8 initially?

9 BY MR. ESCOBAR:

10 Q. Okay. So this particular bitmap data DVD
11 starts at 13:26:21.718; is that correct?

12 A. Yes.

13 Q. Okay. Let's go through -- is this the first
14 actual file that appears after Mr. Reeves is coming back
15 from the front counter and is now seated in his chair?

16 A. I believe you're right.

17 Q. Okay.

18 A. We did all of the images, so all of them are
19 there.

20 Q. But this one in particular, this 13 --

21 MR. ESCOBAR: Your Honor, if you want to jot
22 that down, it's an important bitmap, 13:26:21.718.
23 Can we blow that up again?

24 Okay. Let's go to the next file in sequence.

25

1 BY MR. ESCOBAR:

2 Q. Now, that next file in sequence, Mr. Koenig, is
3 a "No recording"; is that correct?

4 A. Right, and for the next obviously 3.570 seconds
5 there is no recording.

6 Q. Okay.

7 MR. ESCOBAR: And so, Mr. Lacey, can we go, for
8 that period of time, image by image?

9 BY MR. ESCOBAR:

10 Q. Now I will use my pen. This is the first image
11 after that 3.6-second "No recording" time; is that
12 correct?

13 A. Yes, sir.

14 Q. In this image, you see an object here and what
15 appears to be a white rectangular object --

16 MR. MARTIN: I'm going to object to the
17 characterization and Mr. Escobar testifying as to
18 what is an object. That's going to be a big bone of
19 contention throughout this entire trial. I would
20 object to his characterization and testifying before
21 Your Honor.

22 THE COURT: Response?

23 BY MR. ESCOBAR:

24 Q. The white item is right there.

25 A. I see it.

1 Q. Is that the same --

2 MR. MARTIN: Excuse me.

3 THE COURT: Mr. Martin, I'll-- your objection
4 is heard. You can object contemporaneously to any
5 narrative or, as you indicated, testimony.

6 I'm looking at it. I can kind of --

7 MR. MARTIN: You have to understand, Judge.
8 May I step in right where Mr. Escobar is on the
9 other side so I'm not in his way so I can see
10 exactly what he's pointing to? His back is to me,
11 and I can't see a thing that he's doing.

12 THE COURT: That's fine. That will probably
13 help the situation.

14 MR. MARTIN: Thank you.

15 THE COURT: Uh-huh.

16 BY MR. ESCOBAR:

17 Q. Okay. He zoomed it up a little bit more for
18 all of us to be able to see. What I'm talking about is
19 this item here as well as this item here in the recording
20 frame of the Cobb Theater Camera 11; is that correct?

21 A. Correct.

22 Q. Now, that white item, is that the same white
23 item that we brought in the demonstrative exhibit that we
24 showed earlier?

25 A. For the interpolation?

1 Q. Yes.

2 A. That is correct.

3 Q. Okay. And that item had a pixel number of
4 2-by-3, or rectangle --

5 A. Yes, sir.

6 Q. -- is that correct?

7 A. Yes, sir.

8 Q. Okay. Now, since the previous frame to this
9 frame right here was not recorded, you're not able to
10 capture that previous frame, correct?

11 A. It never was recorded. That's correct.

12 Q. It was never recorded, and that's why we have a
13 black frame there?

14 A. Yes.

15 MR. ESCOBAR: Let's go -- and go to the next
16 frame, Mr. Lacey. I know it's going to reset and
17 everything, resume. That's the next frame, the next
18 frame, the next frame.

19 BY MR. ESCOBAR:

20 Q. There is an object right here now. As a
21 forensic expert, are you able to tell this Court what's
22 that object is?

23 A. No, sir.

24 Q. Would you please tell the Court why in
25 forensics, especially in your field, that that is not

1 appropriate?

2 A. You have to have enough pixels to be able to
3 see it. You only have -- it's like I gave you six blocks
4 that are of some white or gray scale or black and said:
5 "Pile them up and tell me if you only had that, would you
6 be able to make anything other than a rectangle?"

7 There's not enough there. You would need many,
8 many more pixels to have a shot at having any idea what
9 it is.

10 Q. Likewise, this that we now see here, are you
11 able to opine what that is now in that top row of the
12 theater?

13 A. Based on that image, no. Again, there's not
14 much detail to whatever it is, you know, based on a
15 reasonable limited number of pixels, but also it could be
16 motion involved and other things that might have blurred
17 it.

18 Q. Now, both of those items first appear together
19 in that first frame after there was no recording?

20 A. That's correct.

21 Q. The next frame, is that a "No recording" frame?

22 A. It is.

23 Q. Next frame.

24 A. (Witness complies.)

25 Q. Is that a "No recording" frame?

1 A. Yes, sir.

2 Q. Next frame.

3 MR. ESCOBAR: Blow it up, please.

4 BY MR. ESCOBAR:

5 Q. This frame is 14:05:270Q6, Cam 11; is that
6 correct?

7 A. Yes.

8 Q. And likewise, you're not able to tell what
9 either of those two items are?

10 A. Not looking at that image. That's correct.

11 Q. Next frame, "No recording"?

12 A. "No recording."

13 Q. Next frame. "No recording"?

14 A. "No recording."

15 Q. Next frame?

16 A. "No recording."

17 Q. Next frame?

18 A. "Recording."

19 Q. Okay. Now, before we take the time period,
20 this frame has a time period like the other one did.
21 It's just we enlarged it so much that the other ones
22 didn't take. 13:26:25.65, you still see an item of some
23 sort there and an item of some sort there in that last
24 row of the Cobb Theater, correct?

25 A. Correct.

1 Q. You can't opine on that, either?

2 A. That's correct.

3 Q. Next frame. "No recording"?

4 A. "No recording."

5 Q. "No recording"?

6 A. Yes.

7 Q. "No recording"?

8 13:26:25.755, you see a smaller portion of that

9 item and another white item there? Can you opine what

10 that is?

11 A. No, sir.

12 Q. Next frame?

13 A. "No recording."

14 Q. Next frame?

15 A. "No recording."

16 Q. Next frame?

17 A. 13:26:25.855.

18 Q. Now, the object that was here almost totally

19 vanished, but now we still have a white item still in

20 row A or the top row of the Cobb Theater, correct?

21 A. Yes, sir.

22 Q. Next frame?

23 A. "No recording."

24 Q. Next frame?

25 A. "No recording."

1 Q. Next frame? 13:26:25.956. The item that
2 appeared to be in row A has vanished. The white item
3 that we were focusing on before has also vanished?

4 A. That's correct.

5 Q. Next frame, 13:26:25.989.

6 Next frame, next frame, next frame, next frame,
7 next frame.

8 MR. ESCOBAR: And, Doug, I'm going to have you
9 go in the small -- the Court has a monitor up at the
10 front that she can see the small, so let's go small
11 all the way until I tell you to stop. Go.

12 BY MR. ESCOBAR:

13 Q. Now, there appears to be seven-plus-seconds,
14 almost eight seconds between now and the next frame; is
15 that correct?

16 A. Yes, sir.

17 Q. Now, this frame is 13:26:35.765; is that
18 correct?

19 A. Yes, sir.

20 Q. That's the first frame after eight minutes --
21 excuse me -- eight seconds of no recording?

22 A. Approximately eight seconds, yes.

23 Q. Next frame, "No recording"?

24 A. Correct.

25 Q. Next frame, "No recording"?

1 A. No recording.

2 Q. Next frame, that is 13:26:35.865.

3 Next frame, "No recording"?

4 A. Right.

5 Q. Next frame, "No recording"?

6 A. Correct.

7 Q. Next frame. That is 132635996.

8 A. Actually, it's 966.

9 Q. Excuse me. 966.

10 Next frame?

11 A. "No recording."

12 Q. Next frame? Next frame?

13 A. "No recording."

14 Q. Next frame.

15 A. "No recording."

16 Q. Next frame?

17 A. "No recording."

18 Q. Next frame?

19 A. "No recording."

20 Q. Next frame?

21 A. "No recording."

22 Q. Next frame?

23 A. "No recording."

24 Q. Next frame?

25 Keep going. Keep going.

1 MR. ESCOBAR: Mr. Lacey, I want you to go back,
2 okay. I want you, right there, to blow it up.

3 13:26:36.266.

4 Next one, blow it up.

5 BY MR. ESCOBAR:

6 Q. Now we're starting to see something in this
7 particular area; is that correct, Mr. Koenig?

8 A. Yes, sir.

9 Q. Next frame, that item is coming in closer to --
10

11 MR. MARTIN: Your Honor, I'm going to object to
12 Mr. Escobar testifying and actually describing the
13 content.

14 MR. ESCOBAR: I won't describe it. That was my
15 fault. I shouldn't have done that.

16 THE COURT: Sustained.

17 BY MR. ESCOBAR:

18 Q. This item is still in the frame; is that
19 correct?

20 A. Yes, sir.

21 Q. Next one? Next one? Next one? Next one?
22 Next one? Next one? Next one? Next one? Next one?
23 Next one? Next one?

24 We've gone through all the way up to
25 13:26:36.733; is that correct?

1 A. Yes, sir.

2 Q. Next one? Next one? Next one? Next one?
3 Next one? Next frame? Next frame? Next frame? Next
4 frame? Next frame? Next frame? Next frame? Next
5 frame? Next frame? Next frame? Next frame? Next
6 frame. Next frame. Next frame. Next frame. Next
7 frame. Next frame. Next frame. Next frame. Next
8 frame. Next frame. Next frame.

9 Now, Mr. Lacey, I would like to you go to
10 13:26:37.834.

11 MR. ESCOBAR: Can you zoom it in? Okay.

12 BY MR. ESCOBAR:

13 Q. Now we're going to go back and we're going to
14 do some calculations. I'd like for to you do some
15 calculations based upon these particular bitmap images.

16 MR. ESCOBAR: Mr. Lacey, I would like to go to
17 13:26:21.718. That's the original first frame that
18 we talked about.

19 Your Honor, some of these time periods may be
20 extremely wrong, but if the Court wants to take note
21 of the one that we're going to be highlighting, I
22 would appreciate it.

23 BY MR. ESCOBAR:

24 Q. Now, if you recall, your testimony was that for
25 about 3.6 seconds after that frame there was no

1 recording?

2 A. That's correct.

3 MR. ESCOBAR: Mr. Lacey, can you go to

4 13:26:25.322.

5 BY MR. ESCOBAR:

6 Q. Is that the first image after that 3.6-second
7 "No recording" period?

8 A. Yes, sir.

9 Q. Now, there's a sequence of files there that
10 ends at 13:26:27.934; is that correct?

11 A. Say at that again. 13 --

12 Q. 26:27.924.

13 Could you give the Court the calculations in
14 seconds for that sequence?

15 A. Well, if I wrote it down right, it's 6.206.

16 Q. It would be -- we just want the 13:26:25.22.

17 A. Oh, you're changing it.

18 Q. Okay.

19 A. And you want 13:26:27 --

20 Q. No. 13:26:27 -- yeah, 13:26:25.322 and
21 13:26:27.924.

22 What's the seconds that that sequence of files
23 takes?

24 I may be able to help you out. 2.602.

25 A. 13:26:27.924.

1 Q. Right, and the starting point is 13:26:25.322.

2 A. 2.602.

3 Q. 2.602, that's what I said. Okay.

4 So you now have no recording, that is your
5 testimony, for 7.807 seconds; is that correct? After
6 that 13:26:27.924 there is no recording for 7.807
7 seconds; is that correct?

8 A. Yes.

9 Q. And the first frame after that eight -- that
10 7.8 seconds is 13:26:35.765. 13:26:35.765?

11 A. Yes.

12 Q. Okay. Now, you remember that what we saw on
13 the video to be a flash or a muzzle flash was at
14 13:26:37.834?

15 A. 834.

16 Q. 834.

17 A. Okay.

18 Q. Now, the difference between 13:26:35.765 and
19 the muzzle flash is how many seconds?

20 A. Too many numbers.

21 Q. Sorry. Sorry about that.

22 A. Okay. 13:26:35.765, and what's the other one?

23 Q. 13:26:37.834. That was the first frame after
24 the unrecorded 7.807-second segment.

25 A. If I wrote it down right, it's 2.059 seconds.

1 Q. So between that first frame that appears after
2 the 7.807-second mark, you have 2.069 seconds; is that
3 correct -- or 59?

4 A. 59.

5 Q. Okay.

6 MR. ESCOBAR: Mr. Lacey, can we go back -- or
7 you're there already. Okay.

8 BY MR. ESCOBAR:

9 Q. So this is the frame right here 13:26:35.765.
10 That's the frame where you do not see that object moving
11 in and then moving out?

12 MR. MARTIN: Your Honor, again, I'm going to
13 object. We're watching still frames here. Still
14 frames, frame by frame. He's testifying. I object.

15 THE COURT: So noted. I'll look at it on my
16 own.

17 BY MR. ESCOBAR:

18 Q. So this is the first frame after that un --
19 that movement of some sort and the muzzle flash, 2.069
20 seconds?

21 A. And I'll accept it as a muzzle flashing because
22 all the dust came down right after that.

23 Q. Okay.

24 A. So it obviously occurred somewhere in that time
25 frame.

1 Q. Okay. I'm going to show you what's been marked
2 now as Exhibit 29.

3 A. Yes. This is a video DVD. It contains a bunch
4 of looped portions of Cam 11.

5 Q. What are looped portions of Camera 11? What
6 does that mean?

7 A. That means just that one section played over
8 and over and over again.

9 Q. Okay. And is, forensically, that appropriate?

10 A. Sure. It's just the same area repeated over
11 and over again.

12 Q. Okay. And does that exhibit fairly and
13 accurately depict what you recorded from the Q6 hard
14 drives from the video surveillance of the Cobb theater?

15 A. Yes.

16 MR. ESCOBAR: We would introduce Exhibit
17 Number 29.

18 MR. MARTIN: Mr. Escobar, are there two disks
19 with that? Because I have two.

20 MR. ESCOBAR: Remember I said that's a copy?
21 I'll give you the date now, which would be
22 introduced 13, and the date is 2/9 of 2017.

23 MR. MARTIN: And I have two?

24 MR. ESCOBAR: Uh-huh. Camera 11.

25 MR. MARTIN: So I have two? Do we have an A

1 and B? I want my exhibit numbers. I want the
2 record to be accurately clear.

3 MR. ESCOBAR: I'm going to give you exhibit
4 numbers as I introduce them.

5 MR. MARTIN: I thought you just did that.

6 Judge, I'm -- you know, we have Defense Exhibit
7 Number and, you know --

8 THE COURT: We've got something that came in as
9 13. Was it 1 or 2?

10 MR. ESCOBAR: Judge, I'm only introducing one
11 at a time. I haven't introduced 2 at all throughout
12 this whole process. So he'll have to wait, and when
13 I introduce the second one, then he'll be able to --

14 MR. MARTIN: You know, I need to have a chance
15 to look at the exhibits, and this is stuff that was
16 handed to me this morning.

17 MR. ESCOBAR: Judge, this is --

18 MR. MARTIN: Can we have just a little bit of
19 courtesy between the lawyers? Show me what his is
20 and just let me look at what he's showing him, and
21 then I could figure out what I have. It's not like
22 I've had days to look at this.

23 Judge, please accept my apologies for raising
24 my voice.

25 THE COURT: That's okay. It wasn't that high.

1 MR. MARTIN: It was more than it should have
2 been.

3 THE COURT: In the packages, there are rubber
4 bands around them. Is it two or is it one?

5 MR. ESCOBAR: Your Honor, this is going to be A
6 and B or we will make this another number. This is
7 the second one. This is the only one that's going
8 to have it that way. We've always got two because
9 we want one to keep and one to introduce. I've only
10 been introducing one.

11 THE COURT: There's two in your hand because
12 one is your copy and one you're putting in?

13 MR. ESCOBAR: In most of these -- this one is
14 going to be actually one we're going to introduce as
15 well. We're going to give that a number.

16 THE COURT: Okay. But you're putting a sticker
17 on the ones that are --

18 THE CLERK: I'm putting a sticker on one, but I
19 don't know which one it was.

20 MR. ESCOBAR: Every one that I am introducing,
21 she's putting a sticker on before we're playing it.

22 THE COURT: And you'll, at some point, let
23 Mr. Martin get clear as to what is admitted?

24 MR. ESCOBAR: Yes.

25 MR. MARTIN: I'm clear to the next one.

1 THE COURT: Okay. Thank you.

2 (Whereupon, Defense Exhibit 13 for
3 identification was received in evidence by the
4 Court.)

5 (Video published.)

6 BY MR. ESCOBAR:

7 Q. Now, Mr. Koenig, this has two circles, one red
8 and one yellow. Is that -- the highlight that you put,
9 it's called, "Content Highlight"?

10 A. Yes, I was at the direction of your office.
11 You picked out the areas to be done.

12 Q. Mr. Koenig, this is at a slower rate of motion;
13 is that correct?

14 A. Half-speed. Yes, sir.

15 Q. Mr. Koenig, this is all a looped video at that
16 13:26:25-plus area; is that correct?

17 A. Yes, sir.

18 Q. Now, Mr. Koenig, this is quarter-speed?

19 A. Yes, sir.

20 Also I want to point out if you look, like,
21 around the individual moving forward, you kind of see
22 a -- kind of a squareish, rectangular change in the
23 green.

24 Q. Uh-hum.

25 A. That's called blocking. That's caused by

1 compression in the system, and so it's an artifact of the
2 compression of the recording system.

3 Q. Okay.

4 A. It's going to be in areas where there's
5 movement, usually.

6 MR. ESCOBAR: Madam Clerk?

7 MR. MARTIN: What was the number on the one we
8 just played -- admitted number?

9 THE CLERK: 13.

10 MR. MARTIN: 13? Thank you, Madam Clerk.

11 BY MR. ESCOBAR:

12 Q. Mr. Koenig, I'm going to show you what's been
13 marked as Defense Exhibit Number 29A and have you take a
14 look at that exhibit.

15 A. Okay.

16 Q. Do you recognize that exhibit?

17 A. Yes.

18 Q. What is it?

19 A. It is, again, having enhanced magnified loops
20 with highlighted objects for parts of Cam 11 in Q6.

21 Q. Okay. Does that fairly and accurately also
22 depict what you enhanced and enlarged from Q6 which is
23 video surveillance camera of the Cobb Theater?

24 A. Yes, sir.

25 Q. Thank you.

1 MR. ESCOBAR: Your Honor, we would move this
2 into evidence.

3 A. Okay. 14 just forward.

4 (Whereupon, Defense Exhibit 14 for
5 identification was received in evidence by the
6 Court.)

7 BY MR. ESCOBAR:

8 Q. Now, Mr. Koenig, this is without the content
9 highlighted; is that correct?

10 A. Yes, sir.

11 Q. Mr. Koenig, all of these loops that we're
12 watching, do they start at the first frame that we talked
13 about after the period of time had lapsed where there was
14 no recording?

15 A. Yes, sir.

16 Q. So both this one and the previous exhibit that
17 we talked about, which would be Exhibit Number 13?

18 A. Yes, sir.

19 Q. Now, again, Mr. Koenig, this is 50 percent
20 playback, 400 percent enhanced?

21 A. Yes, 400 percent enlarged. Excuse me.

22 Q. Mr. Koenig, this is 25 percent playback, 400
23 percent enlarged?

24 A. Magnified.

25 Q. Magnified.

1 MR. ESCOBAR: Your Honor, we've been going for
2 two hours. This is a good time for a break.
3 There's another series of videos that are a little
4 different that we'll be introducing next.

5 THE COURT: All right. This would be a good
6 time for a break. Let's take 15. How are we doing
7 on time? Ten or 15 minutes?

8 MR. ESCOBAR: Fifteen, if we can.

9 THE COURT: All right. Fifteen minutes.

10 (Recess taken.)

11 THE COURT: Mr. Martin, you okay with
12 proceeding?

13 MR. MARTIN: Please, Judge.

14 MR. ESCOBAR: May I approach, Your Honor?

15 THE COURT: Yes.

16 BY MR. ESCOBAR:

17 Q. Mr. Koenig, I'm going to show you what's been
18 marked as Defense Exhibit Number 37 and ask you to please
19 take a look at that. This is just like what's been
20 marked as Government's Exhibit 12 which involved --

21 A. Government?

22 MR. ESCOBAR: I'm sorry, no. It's the Court's.

23 MR. WHITTEL: Court's. Okay.

24 MR. ESCOBAR: Apologize to everybody.

25 THE WITNESS: Number 12, this was bitmaps of

1 Cam 11. This is bitmaps of Cam 12.

2 BY MR. ESCOBAR:

3 Q. Okay. So if we were looking at the screen of
4 the theater -- we were seated there looking at the
5 screen, that would be the camera to your left?

6 A. Correct.

7 Q. Okay. And, again, with that particular
8 exhibit, is that a true and accurate reflection of what
9 the contents of Q6 was that you enlarged and enhanced and
10 then reproduced in that DVD?

11 A. Correct.

12 MR. ESCOBAR: Your Honor, we would introduce
13 Exhibit Number 37.

14 THE COURT: 15?

15 (Whereupon, Defense Exhibit 15 for
16 identification was received in evidence by the
17 Court.)

18 THE CLERK: Yes.

19 BY MR. ESCOBAR:

20 Q. Mr. Koenig, again, on this particular exhibit,
21 did you download the image in this exhibit into the
22 computer in order to facilitate our playing it here
23 today?

24 A. Yes, sir.

25 Q. And what's on the computer and what's on the

1 DVD are true and accurate copies?

2 A. Well, actually, it's a data CD, I believe.

3 Q. Yes. It is. Forgive me.

4 A. That just means it has a series of files on it.

5 Q. Okay.

6 A. So it's easy enough to transfer them without
7 loss to another storage.

8 MR. ESCOBAR: Judge, we're going to try to --
9 this is, again, Camera 12. Go ahead and let's get
10 started there.

11 MR. MARTIN: May I move as before, Judge?

12 THE COURT: You may.

13 MR. MARTIN: Thank you, Your Honor.

14 MR. ESCOBAR: For purposes of the record, we
15 are starting at 13:26:11.574. Let's proceed
16 through that. Proceed through that. Proceed.
17 Proceed. Proceed. Proceed. Proceed. Proceed.
18 Proceed. Proceed. Proceed. Proceed. Proceed.
19 Proceed proceed. Proceed. Proceed. Proceed.
20 Proceed. Proceed. Proceed. Proceed. Proceed.
21 Proceed.

22 Next image. Next image. Next image.

23 We have now gone through the sequence to
24 13:25:12.842.

25 Next image. Next image. Next image. Next

1 image.

2 BY MR. ESCOBAR:

3 Q. Now, there's a "No recording" for 1.601; is
4 that correct?

5 A. Yes, sir.

6 Q. Okay. And the next recorded image is
7 13:26:14.577; is that correct?

8 A. Yes, sir.

9 MR. ESCOBAR: Next image. Next image. Next
10 image. Next image. Next image. Next image. Next
11 image. Next image. Next image. Next image. Next
12 image. Next image. Next image. Next image. Next
13 image. Next image. Next image. Next image. Next
14 image. Next image. Next image. Next image.

15 BY MR. ESCOBAR:

16 Q. We've gone through sequence up to 13:26:15.712;
17 is that correct?

18 A. Yes, sir.

19 MR. ESCOBAR: Next image. Next image. Next
20 image. Next image. Next image. Next image. Next
21 image. Next image. Next image. Next image. Next
22 image. Next image. Next image. Next image. Next
23 image. Next image. Next image. Next image. Next
24 image. Next image. Next image. Next image. Next
25 image. Next image. Next image. Next image. Next

1 image. Next image. Next image. Next image. Next
2 image. Next image. Next image. Next image. Next
3 image.

4 BY MR. ESCOBAR:

5 Q. Now, this shows now that there was a stoppage
6 of recorded -- or no recording for how long?

7 A. 20.587 seconds.

8 Q. Okay.

9 MR. ESCOBAR: Go ahead, Mr. Lacey, and go
10 through it.

11 Your Honor, I want to note this particular
12 image number is an important image out of Camera 12.
13 That is 13:26:38.034.

14 BY MR. ESCOBAR:

15 Q. Now, is that the first image, Mr. Koenig, from
16 that 20-second lapse where camera 12 was not recording?

17 A. That's correct.

18 MR. ESCOBAR: Next image. Next image.

19 BY MR. ESCOBAR:

20 Q. Now, that first frame that we saw, that was
21 after the muzzle flash that we saw in Camera 11; is that
22 correct?

23 A. Yes, sir.

24 Q. So the first frame that we saw on Camera 12
25 that was recorded 20 seconds after that lapse of

1 non-recording time, the first frame that you see in these
2 bitmaps from Camera 12 was after the muzzle flash?

3 MR. MARTIN: Your Honor, I'm going to object to
4 Counsel testifying. It's the crucial stuff, and
5 Mr. Escobar, you know, just asking in a leading
6 fashion what he believes the video shows is
7 inappropriate.

8 We're all going to watch it, and we're all
9 going to figure it out for ourselves. And Mr.
10 Escobar and I could do this in closing arguments,
11 but not now.

12 MR. ESCOBAR: I will rephrase it, Your Honor.

13 THE COURT: Thanks.

14 BY MR. ESCOBAR:

15 Q. Mr. Koenig, that first frame that we see on
16 Camera 12 after that 20-second non-recorded period, how
17 does that coincide with the Camera 11 frame that we saw
18 of the muzzle flash?

19 A. It's after that.

20 MR. ESCOBAR: Keep going, Mr. Lacey. Next
21 frame. Next frame. Next frame. Next frame. Next
22 frame. Next frame. Next frame. Next frame. Next
23 frame. Next frame. Next frame. Next frame. Next
24 frame. Next frame. Next frame. Next frame. Next
25 frame. Next frame. Next frame. Next frame. Next

1 frame. Next frame. Next frame. Next frame. Next
2 frame.

3 Mr. Lacey, could you now go to the next portion
4 of that video that's non-recorded and can you
5 enlarge that? Next frame.

6 BY MR. ESCOBAR:

7 Q. So there again, now, there is -- Mr. Koenig,
8 how much of a time frame for non-recorded had video from
9 Camera 12?

10 A. 7.140 seconds.

11 Q. Okay. I see it.

12 Now, let's talk a little bit about bit frames
13 and your time with the FBI -- and even before you got
14 into the forensic section of the FBI, you were an FBI
15 agent, correct?

16 A. I was what they call a street agent in -- you
17 know, in our agency.

18 Q. And you had some experience, obviously, in
19 investigating crimes that, you know, sometimes had
20 evidence there at the scene; is that correct?

21 A. Yeah. I was involved in bank robberies and
22 other types of investigations where crime scene work has
23 to be done.

24 Q. And is it -- was it your responsibility to
25 secure evidence properly?

1 A. I think that was for all agents, not just me in
2 particular at all.

3 Q. Did you ever delegate the securing of evidence
4 to employees, for example, of the bank?

5 MR. MARTIN: Excuse me, Judge. I'm going to
6 object to this line of questioning. It's outside
7 the scope and the realm of the expertise in which he
8 was designated. He was designated as a specific
9 expert, and throughout the entire discovery process,
10 there's been no information, no inclination that we
11 were going to go into what he did almost 40 years
12 ago as an FBI agent, as a street agent.

13 Everything that I've done up to this point and
14 I've been told is that he is a video expert, and
15 that's the limited scope of his testimony.

16 So right now, if you are going to allow that,
17 then we need a Richardson hearing, because that's
18 where we're at at this point.

19 So I'm going to object to the testimony.

20 MR. ESCOBAR: Your Honor, he's not testifying
21 as an expert. You don't need to testify as an
22 expert to talk about his time in law enforcement and
23 securing evidence. That's not expert testimony.
24 That's actually a layperson's officer's opinion as
25 to what he did in order to secure evidence properly,

1 even 40 years ago.

2 In fact, I'm glad it's 40 years ago because
3 those particular rules existed 40 years ago and
4 those same rules exist today.

5 MR. MARTIN: There's absolutely nothing in his
6 CV to indicate the experience that we now want to go
7 through. This is -- and that's the problem is, you
8 know, you're led down the primrose path, and now I
9 sit here in the middle of the courtroom and I'm
10 hearing testimony that I had no idea would come out
11 of this gentleman's mouth, not from his CV, not from
12 the deposition, not from anything.

13 MR. ESCOBAR: Your Honor, could I approach the
14 Court and give the Court Defense Exhibit Number 28,
15 that they had had from the very beginning of
16 Mr. Koenig, which clearly says that between the
17 years of 1970 and 1974 he was a special agent with
18 the FBI, investigative responsibility in Atlanta and
19 the Detroit divisions involving solving bank
20 robberies, prison escapes, terrorism and other
21 violations of the federal law.

22 May I approach?

23 So for him to come in here and now say that he
24 had no notice of it is not being genuine to this
25 Court.

1 MR. MARTIN: I'm absolutely being genuine to
2 the Court.

3 THE COURT: Was this the subject of any
4 deposition questions?

5 MR. ESCOBAR: Judge, you know, I can't
6 remember, you know, back when he took his
7 deposition, but certainly he had the CV. So if he
8 chooses not to ask a question about someone's past,
9 then he chooses not to ask a question about
10 someone's past.

11 I should not have to spoon feed him and say,
12 "Mr. Martin, this is what I anticipate asking of
13 this particular witness." That is not expert
14 testimony.

15 THE COURT: All right. Let's get to the other
16 prong.

17 For what purposes are you eliciting this
18 testimony?

19 MR. ESCOBAR: Because what happened in this
20 particular case, Your Honor -- and you're going to
21 be able to see it through their own witnesses as
22 well -- is that Detective Aaron Smith, who was in
23 charge of the crime scene, allowed the Cobb Theater
24 instead of him -- he had his entire cyber crime unit
25 there at the scene of the Cobb Theater.

1 So what does he do? Instead of getting those
2 cyber crime detectives who testified and we deposed
3 who said, "We were there to help him do that. We
4 could have downloaded the hard drive. We could have
5 imaged those hard drives. We could have done
6 everything right then and there."

7 Detective Aaron Smith decides that, no, he is
8 going to give it to some unknown body up in Alabama,
9 that is the Cobb Theater, and I think it's very
10 relevant for this very experienced former FBI agent
11 to be able to testify that that is a protocol that
12 back 40 years ago was a huge no-no. You do not
13 allow an independent private person to control the
14 evidence.

15 Just like if it was a kilo of cocaine, you
16 don't give it to your neighbor and say, "By the way,
17 an officer" -- "by the way, why don't you hold this
18 for me until I come back next week and pick it up?"
19 It's no different from a kilo of cocaine as it is
20 for a video and for a hard drive, and that's exactly
21 what the government did in this case.

22 MR. MARTIN: That may or may not be true until
23 you hear all the testimony, but the bottom line is
24 what Mr. Escobar just told you is he's offering him
25 as an expert in how an investigation should take

1 place and saying, "Believe me, because 40 years ago
2 I walked the street as an FBI agent and that's
3 expert testimony," however you want to couch it.
4 Because he's pitting that against the police
5 officers in this particular case and so, therefore,
6 it's beyond the expertise in which he was, in fact,
7 qualified and I object to it.

8 MR. ESCOBAR: Judge, I could tell you as an
9 officer of the Court, not only is he going to say
10 that, but their own officers -- their own detectives
11 that were there at the scene, they're going to say
12 it as well.

13 THE COURT: All right. Well, then let's keep
14 it clean and let them say it. He's been --

15 MR. ESCOBAR: I'll move on, Judge.

16 THE WITNESS: He's been proffered as an expert
17 in the video and those things. Let's keep it at
18 that.

19 MR. ESCOBAR: I will, Your Honor.

20 THE COURT: Thank you.

21 BY MR. ESCOBAR:

22 Q. I will show you what's been marked as Defense
23 Exhibit Number 35 and ask you to please take a look at
24 Exhibit Number 35 and tell me what that is.

25 A. 35 is a video DVD quarter-speed Cam 11. These

1 are enhanced, resized two times magnification.

2 Q. And, again, is that a fair and accurate
3 duplication of the information that you received from Q6,
4 which is the Cobb Theater surveillance video in this
5 case?

6 A. Yes, sir.

7 MR. ESCOBAR: Your Honor, we would introduce,
8 at this point in time, Defense Exhibit Number 35
9 which will be, if the Court accepts it,
10 Court-introduced Exhibit Number 16.

11 THE COURT: All right.

12 MR. MARTIN: If I can just see it, Because I
13 have two.

14 MR. ESCOBAR: I will.

15 THE COURT: They will otherwise be admitted.

16 MR. ESCOBAR: That is introduced as Exhibit
17 Number 16.

18 MR. MARTIN: Admitted.

19 (Whereupon, Defense Exhibit 16 for
20 identification was received in evidence by the
21 Court.)

22 BY MR. ESCOBAR:

23 Q. Mr. Lacey, in order to save a little bit of
24 time for the Court, I would like you to go to the
25 following notations, and I'm just going to put them in

1 for the record.

2 It's the start of the Chapter 31:18 to 32:50,
3 and then 34:54 to 35:35, and then 46:25 to the end, which
4 will be 50:08.

5 MR. MARTIN: Again, Your Honor may I move,
6 please?

7 THE COURT: You may.

8 MR. MARTIN: Thank you.

9 MR. ESCOBAR: Excuse me, Your Honor. May I
10 move this real quick?

11 THE COURT: Yes, sir.

12 BY MR. ESCOBAR:

13 Q. Mr. Koenig, now, there was an approximately 11,
14 12-second no-recording at this point in time; is that
15 correct?

16 A. A little over 12 seconds, yes.

17 Q. Mr. Koenig, we sped that film up to where
18 Mr. Reeves is coming back into the theater after going to
19 the front desk?

20 A. That's correct, from the timeline you saw that,
21 but it's still not film. It's digital video.

22 Q. Digital. Sorry.

23 So there's no recording now for three-plus
24 seconds, okay.

25 A. Of course. It's going to be four times longer

1 because we're playing it in one-quarter speed.

2 Q. Now, there's seven-plus seconds again with no
3 recording?

4 A. Correct.

5 MR. ESCOBAR: Thank you, Mr. Lacey.

6 May I approach, Your Honor?

7 THE COURT: You may.

8 BY MR. ESCOBAR:

9 Q. I am going to show you what's been marked as
10 Defense Exhibit Numbers 33, 32, and 34, and I would ask
11 you to look at those exhibits and see if those are
12 variations of the imaging that you did and enlargements
13 and enhancements of the Q6 videos of the Cobb Theater.

14 A. Yes. They're all video DVDs of Cam 11.

15 32 is unenhanced at the original image size,
16 320-by-240.

17 33 is enhanced, but still at 320-by-240.

18 And 34 is direct unenhanced. In other words --
19 and magnified twice or enlargement of four of the images.

20 Q. Okay. And do those fairly and accurately
21 depict what you were able to enhance and enlarge from the
22 Q6?

23 A. Right. Also, I didn't mention it's one-quarter
24 speed, all of them.

25 MR. ESCOBAR: Your Honor, we would introduce as

1 Defense Exhibit Number 32 -- we'll show all of these
2 to you -- 33 and 34.

3 THE COURT: 17, 18, 19 for you?

4 MR. ESCOBAR: 17 is 34, 18 is Defense 33 --

5 MR. MARTIN: Going backward.

6 MR. ESCOBAR: -- and 32 is 19, 18, 17.

7 (Whereupon, Defense Exhibits 17 through 19 for
8 identification were received in evidence by the
9 Court.)

10 BY MR. ESCOBAR:

11 Q. I'm going to show you what's been marked as
12 Defense Exhibit Number 25 and Defense Exhibit Number 30
13 and ask you what those are, 35 first.

14 A. 35?

15 Q. Or 25.

16 A. Video DVD, Cam 12, and that's what I'm talking
17 about right now.

18 Q. Okay.

19 A. So this is a variety of setups for Cam 12. It
20 would have matched the same as for the Court's Exhibit
21 11. That was for Cam 11, so this is kind of the same
22 setup that was for that.

23 Q. Just a different camera?

24 A. Different camera, yes.

25 Q. Okay. And, again, with Exhibit Number 25, does

1 that fairly and accurately depict the contents of Q6 as
2 you enlarged it and enhanced it?

3 A. Did you want to give me Exhibit 26 as the
4 second one? This is 30.

5 Q. Yeah -- no, 25, and then 30. We're not doing
6 26. That comes out.

7 A. 30 is a data DVD as bitmaps of various
8 features, the loops that were on the Court's Exhibit 13.

9 Q. Okay. Again, this one from Camera 11, do these
10 fairly and accurately depict as well the contents of Q6
11 as you enlarged and enhanced them?

12 A. Yes.

13 Q. Okay.

14 MR. ESCOBAR: Your Honor, we would introduce
15 Exhibit 25 and Exhibit 30 into evidence, 25 being --

16 THE COURT: 20.

17 MR. ESCOBAR: -- and Exhibit 30 being 21.

18 (Whereupon, Defense Exhibits 25 and 30 for
19 identification were received in evidence by the
20 Court.)

21 BY MR. ESCOBAR:

22 Q. The last exhibit. I'm going to show you what's
23 been marked as Exhibit Number 26. What is Exhibit
24 Number 26?

25 A. These are bitmap images for the designated

1 Cam 11, Cam 12 files of Q6. They were copied to a
2 one-terabyte hard drive.

3 Q. Now, those bitmaps there, do they have the
4 black files in between them or not? The "No recording"
5 files, I should say.

6 A. I don't believe they do.

7 Q. Okay.

8 A. Yeah.

9 Q. And does this fairly and accurately again
10 depict the contents of Q6 that you had enlarged and
11 enhanced and reproduced for this particular hard drive?

12 A. That's correct.

13 MR. ESCOBAR: Your Honor, we would introduce
14 Exhibit Number 26.

15 (Whereupon, State's Exhibit 26 for
16 identification was received in evidence by the
17 Court.)

18 BY MR. ESCOBAR:

19 Q. Now, let's talk about what you did, if
20 anything, in an effort to try to determine the source of
21 that white item that we saw in the videos that we've
22 shown the Court today, that 2-by-3 pixel rectangular.

23 A. Whatever. We wanted to run test recordings at
24 the theater using obviously the same cameras and
25 equipment and everything that was done originally. Your

1 office advised us that you had contacted the theater and
2 that was not really a problem except that we had to do it
3 in the middle of the night, so we all went out there
4 on -- I think I have a July 28, 2015.

5 Q. Did you have or did we have with us the left
6 shoe that Mr. Reeves was wearing on the date of this
7 incident as well as a replica of the phone and the black
8 phone case of the iPhone that was Mr. Oulson's phone?

9 A. Yes, sir.

10 Q. And what were we going to do with those two
11 items? What was the plan there at the Cobb Theater to do
12 with those two items?

13 A. Well, we had pulled off images, you know,
14 prints, so we could see everything, know where they were
15 in the theater and then take, you know, the items we have
16 and turn them in every way we could think of in all the
17 areas we could see on the screen to determine if they
18 could be one of those two items.

19 So we figured it would take some hours to be
20 able to do that, because there's obviously lots of ways
21 you could turn things, and then we would have to pull the
22 information off the video system. So, like I said, we
23 got there very late at night and expected to probably be
24 there until morning.

25 Q. What time are we talking about, late at night?

1 We're talking about real late at night?

2 A. Yes. So we ultimately -- I don't think any of
3 us got any sleep that night. Even as it was, we were up
4 all night.

5 Q. Okay. Is that a scientific method of being
6 able to form some opinions concerning those particular
7 items? Meaning, you know, whether that two-by-three
8 pixel that appeared on the video was either a shoe or a
9 cell phone?

10 A. Yes. I mean, you might not always be able to
11 say it is, but you can say it's consistent or it's not
12 consistent.

13 Yes, we realized we would have to take lots of
14 video and see what we come up with back -- obviously back
15 in our lab after we did all of that.

16 Q. And what happened when you got there to the
17 Cobb Theater and you arrived with -- did you arrive with
18 anyone other than the Defense team? Was Mr. Lacey there
19 as well?

20 A. He sure was.

21 Q. Was that your team to try to accomplish this
22 goal?

23 A. Absolutely, yes.

24 Q. Tell me what you did there at the Cobb Theater
25 to try to see if we could have, you know, some control

1 over this scientific process that you were trying to
2 employ.

3 A. Well, we certainly had to have access to that
4 particular theater. I think it was -- at least in the
5 video that was Theater 10, so I don't know what they
6 actually called it -- that's what it was in the video --
7 and be able to set it up and do that.

8 So I think the first thing, we obviously looked
9 at the theater. They had given that space to us, so we
10 went up to the control room -- and it was not a very big
11 room this all was in -- and looked at -- and we ran into
12 a problem because we looked at the screen and getting the
13 exact image was really important so we knew where the
14 seat ended.

15 As you saw in the picture, that was real
16 important to us. We wanted to make sure that was exactly
17 the same.

18 Q. Why is that important? Explain to the Court
19 why that's important in trying to make these
20 determinations.

21 A. Well, you have to have the same camera
22 position. It ended up being much wider than that, so we,
23 at that point, didn't know, okay. Was it miss-set in the
24 system? Had the camera been replaced? Had the system
25 been replaced?

1 I don't even think that night we ever, at that
2 point, knew which one exactly, but ultimately the system
3 had been, to a large extent, replaced and they couldn't
4 tell us it was the same cameras. Are they zoom cameras?
5 Nobody knew. But in the end, it was obvious the system
6 had been changed to the point that trying to run any, you
7 know, exemplars would be just a waste of time.

8 MR. ESCOBAR: No further questions of this
9 witness, and I'll pass the witness.

10 THE COURT: Thank you.

11 Mr. Martin?

12 MR. MARTIN: Judge, I know we just broke, but I
13 would like to get all these exhibits marked. They
14 come in too fast.

15 Could we have 10 minutes? I believe I could be
16 done by 5:00, even with the ten-minute break.

17 THE COURT: Sure.

18 MR. MARTIN: Thank you very much.

19 (Recess taken.)

20 CROSS-EXAMINATION

21 BY MR. MARTIN:

22 Q. Good afternoon, sir.

23 A. Good afternoon.

24 Q. I want to go over a couple of things with you
25 that you discussed with Mr. Escobar during your direct

1 examination. I promise you we're not going to play all
2 the videos, we're not going to play any of them.

3 A. I like the blank areas of video. They're
4 really exciting.

5 Q. Yeah.

6 You mentioned before, in the very beginning of
7 your testimony explaining to us what videos are -- and I
8 believe you indicated to us that videos are just a series
9 of images that are in sequence with one another that are
10 played back to back, and our eyes basically perceive
11 movement and that's a video.

12 A. Yeah, it's a series of digital still images --

13 Q. Yeah.

14 A. -- played in a series.

15 Q. Okay. Now, for a video, then, to have content
16 so that the viewer knows what one is looking at, there
17 has to be movement; does there not?

18 A. I think I understand what you mean. Could you
19 ask it again, please?

20 Q. Sure.

21 In order for the viewer of a video to discern
22 or to be able to identify the content of a video, there
23 has to be movement?

24 A. I don't understand. If we took a video of
25 there and nobody was there, you would still know what the

1 content was, so I'm not sure that's what you mean.

2 Q. May I give you an example?

3 A. Absolutely.

4 Q. All right. I'm standing there with a baseball
5 glove on and I've got a ball in my hand. You're standing
6 over there with a baseball mitt on your hand without a
7 ball. The video starts the. First frame is I have the
8 ball, right? And you're standing over there.

9 A. Okay.

10 Q. But for some reason nobody looked at any other
11 frames after that. But if they had, they would have seen
12 that I put my arm back and I tossed the ball, and you
13 caught it and you threw it back to me.

14 Now we have another frame with me with the ball
15 in my hand. So if they just looked at that frame, they
16 would see two frames with me with the ball in the hand
17 and the glove.

18 Without the movement and seeing the
19 interaction, you couldn't tell that we were playing catch
20 as opposed to I was just a goofy guy that didn't know how
21 to throw the ball, right? You got it now?

22 A. I understand what your question is.

23 Q. All right. Now, so for video to have content
24 for the viewer, there needs to be movement so that we
25 could tell what the -- what's being captured, right?

1 It's important to have movement.

2 A. Well, the answer is if you want to say you're
3 absolutely right -- I agree with you that the object was
4 to show you took the ball and the video shows you threw
5 it to somebody else and they threw it back to you, you
6 know.

7 If you wanted to see that entire action as a
8 video, you'd have to do it. But the still images, if you
9 looked at them individually, would show you having the
10 ball, then pulling your arm up, going back.

11 In other words, that motion would still be
12 perceived but it's in a different way. So each -- each
13 way, looking at the video images -- looking at the video,
14 in a sense, to your brain gives you different
15 information.

16 The video can be deceiving. In other words, if
17 I have a video frame and my hand's up here, and the next
18 frame my hand is here, you as a person will perceive I
19 did that (indicating), even though I might not have done
20 that.

21 So, in other words, each one has its
22 limitations and what it can show you.

23 Q. Here's what we need to chat about.

24 You just said that we wouldn't know if a hand
25 was up here, and then in the next frame the hand was down

1 and you slapped the desk.

2 A. Yeah.

3 Q. Your statement to me was: We don't know, if we
4 just looked at those two frames, if you actually moved
5 your hand down and hit the frame, right?

6 A. No, it's the other way around. If you look at
7 the two frames, you have one frame here and the next
8 frame is here, okay, if you look at it as a video you're
9 going to swear I did this --

10 Q. Okay.

11 A. -- okay? Even though I might have gone
12 (indicating) or, you know, whatever, because you don't
13 pick up that area in between.

14 So, in other words, you have to be careful. In
15 other words, the video can make you believe potentially
16 if you don't have enough images -- if you have 15 or 30
17 per second, usually that's not a problem. But if you
18 only have a couple per second, then, you know, your mind
19 is always going to put in there.

20 It's like, if somebody sees you right there and
21 then you're over there five seconds later, they're
22 absolutely going to perceive you went over there, but
23 they wouldn't really know how you went over there. So
24 the answer is each gives, in a sense, kind of different
25 information.

1 Q. Okay. And we talked about the area in between.
2 Like you mentioned, the hand is up like I'm taking an
3 oath or it's down by my side like I'm going to reach into
4 my pocket. What you're saying is without the frames in
5 between, you don't know if I came straight down, if I
6 came out, you know, with my hand pointed toward your nose
7 and down. That's what you are telling us, right?

8 A. Right. You have to look at all of the frames.

9 Q. All right. So when you do have all the
10 frames -- when you have all the frames like in this case,
11 30 frames per second --

12 A. Well --

13 Q. -- and there is approximately --

14 A. 29.997, actually. But you're right, it's
15 approximately that.

16 Q. Okay. When you have all of the frames, then
17 you're not fooled. You can determine the content,
18 correct?

19 A. You should be able to, unless somebody's moving
20 faster than the video could handle.

21 Q. Well, that's the point, right? If you have all
22 the frames -- if you have everything in between that in
23 order to give content, you have to have movement.

24 A. I guess I have a problem with content. Let's
25 say if you want to see motion, then you have to have all

1 the frames to see what's going on.

2 Q. In order to have motion -- that's how you
3 discern exactly what's happening in the video, by motion?

4 A. If you're interested in the motion part, the
5 answer would be yes.

6 Q. And if you were interested in an event which
7 extends over a period of time, whether it be five
8 seconds, ten seconds or a minute -- forget about how
9 long, but just an event over time.

10 In order to -- if you were interested in what
11 happened over time, then you would need motion in order
12 for the viewer to say: Yeah, that's what happened over
13 time?

14 A. Well, I mean, again, it depends on the motion
15 and all, but yeah. If you have somebody moving from here
16 to here, I mean, you could look at the individual frames
17 and would still have all the information, but the video
18 would be a smoother thing to the mind. It kind of melds
19 it all together.

20 Q. But one frame, and one frame alone, cannot tell
21 you what occurred in an event that occurs over time?

22 A. Okay. You're talking about an event that has
23 motion?

24 Q. Yes.

25 A. That's where you're getting into, right?

1 Q. Correct.

2 A. One frame can't show you motion. I would agree
3 with that.

4 Q. When we talked about video forensics and you
5 mentioned to us that enhancements that take place, even
6 though we're not overriding -- not overriding,
7 over-writing the original content of the video, we may be
8 adding layers with filters, but that process we are
9 making changes, right?

10 A. Yes.

11 Q. Right?

12 A. Yeah. I mean, you have the same number of
13 pixels and --

14 Q. Right?

15 A. But like I said, you always go back and look at
16 the original and make a comparison and say: Hey, does
17 enhancement help you?

18 Q. Right. Each examiner, through his training and
19 being able to critically view a particular video, it's
20 kind of that examiner's preference as to how they do the
21 enhancement; is it not?

22 A. Yes. First off, you could do it with different
23 tools and end up with basically the same result.

24 Q. Let me go back, way old school. Remember when
25 we only had only three channels? We had a brightness and

1 a contrast on that black and white TV --

2 A. We did.

3 Q. -- and someone would come in and go, "I like it
4 this way," and someone else, "No, I like it this way."

5 A. All right.

6 Q. So when we're talking about video forensics,
7 it's the preference of the examiner as to the filters to
8 use, right? I'm going to take this piece by piece.

9 A. You're right. I mean, certainly we -- when I
10 was at the Bureau and since, I've trained people in both
11 audio and video enhancement. Yeah, we're looking for a
12 result. You know, what's the problem? What tools can we
13 use, as much as possible, to correct that problem?

14 Q. Right.

15 A. So are there more than one tool that might get
16 you to the same place or, you know, within the ballpark,
17 let's say. The answer is, yes. So there is some
18 preference between examiners, absolutely.

19 Q. Right. And it's up to the examiner and based
20 on his training and experience to determine to what
21 extent you make those -- and I'm going to call them
22 enhancements, correct?

23 A. Enhancements.

24 Q. Yeah?

25 A. That's not enlargement or anything?

1 Q. No, just enhancement.

2 A. Absolutely. I agree with that.

3 Q. Then based on what the interest is might even
4 dictate to what extent those enhancements are made and
5 where they are made?

6 A. Oh, absolutely.

7 Q. Okay.

8 A. If you decide you're interested in something in
9 a very light area, we would have enhanced it differently.

10 Q. There you go.

11 A. Absolutely.

12 Q. So we not only have the preferences of the
13 examiner that play into the final product of an enhanced
14 video, but we also have the request of an outside third
15 party, if you will, asking an examiner: "Can this be
16 done?"

17 A. That's correct.

18 Q. And once the examiner has that request: "Can
19 this be done," and then based on the training and
20 experience, an examiner will then look at the video and
21 say, "No," or, "Let me give it a shot," right?

22 A. True.

23 Q. Okay. When we talk about the enhancements
24 depending -- and first, let's take away the specific
25 request to do something, all right? We just want to --

1 the examiner wants to enhance it to his preference, okay?
2 Let's just talk about that for a minute.

3 A. Okay.

4 Q. When you have an officer that comes in and
5 says, "Look, here's a surveillance video. Just make it
6 look -- see what can you see, do the best that you can,"
7 no specific request, then that examiner will then apply
8 the particular filters and try to get the best video
9 that's out there where all details can be seen to the
10 extent that it doesn't distort the video, right? There's
11 a limit that you can go?

12 A. I would agree with that statement.

13 Q. All right.

14 Would you not agree that whether it's a
15 specific request or a general request, the whole purpose
16 of an enhancement is to provide the -- a product in which
17 a viewer who has interest in the content of that video
18 then can make -- have all the information available to
19 make whatever decision has to be made, especially in a
20 court setting?

21 A. I agree.

22 Q. Okay. The examiner -- a forensic examiner
23 would have filters available to him for enhancement that
24 can be used by themselves or in combination with one
25 another to different levels in order to get the video to

1 look as best as that examiner believes he can or she can
2 make it look?

3 A. True.

4 Q. Okay. A camera gathers in light, light. Tell
5 me -- help me out. I'm going to play layman with you.

6 A camera gathers in light, and then from that
7 light digitally we get the image? Is that a real basic
8 understanding?

9 A. Yeah, light comes through a lens which focuses
10 it onto a sensor or sensors. It tends to be real small,
11 but, you know --

12 Q. Right?

13 A. -- then it has a matrix of little sensors
14 there, so if you have a, you know, 24-megapixels camera,
15 that's, you know, 4,000 by 6,000, there's going to be
16 4,000 sensors probably up vertically and 6,000 that's
17 going to each sense the average light hitting that
18 particular sensor to produce a pixel.

19 Q. And when we look at a video, a camera can
20 actually capture, at times, a lot more content than the
21 eye can see on the video without enhancement?

22 A. Say that again.

23 Q. Sure.

24 I'm going to go backwards, and I'm going in
25 reverse engineer. We talked about using enhancements to

1 filter, so if you're in the shadow and you want to take
2 the shadow of a very specific area and make it lighter so
3 you can determine whether or not there's a bunny rabbit
4 in the shadow or not, if there's a shadow there, the
5 camera will capture the bunny rabbit in the shadow, but
6 through enhancement we might be able to see the bunny
7 rabbit. Do you see where I'm getting at?

8 A. Potentially, yes.

9 Q. Okay. And there's nothing wrong with that. I
10 mean, that's what -- the enhancement, we're trying do.
11 We're trying to gather as much information as we can off
12 a video by using the filters and enhancements that are
13 available to the examiner.

14 A. True.

15 Q. Okay. You didn't mention during direct, but
16 let me just ask you: What non-linear editing software
17 did you use for the video?

18 A. Adobe -- Adobe -- let me see which version we
19 used of it. I think we might have used two different
20 versions.

21 Hold on. I think we used -- we definitely used
22 Adobe Premier Pro.

23 Q. Uh-huh.

24 A. I believe most of this was done with C,
25 Charlie, S, Sam, 6. However, we do also have the newest

1 version, which is CC2017. So really, the older versions,
2 some areas, actually, has some advantages. So we've
3 actually -- like, if you looked at our -- I don't know if
4 you had a chance to look at our laptop -- we have both
5 CS6 there and 2017 there.

6 So we have the newest version, but that
7 particular version, CS6, has some advantages that we'd
8 like for use.

9 Q. Now, have you been to the seminars, schools,
10 tutorial classes, whatever you want to call them, that
11 Adobe puts on every time a new version comes out to train
12 the examiners on how to use their product?

13 A. They don't have a new version every time it
14 comes out. We directly interface with the technical
15 staff at Adobe.

16 Q. Of course, Adobe Premier Pro, that's pretty
17 much standard in the industry, isn't it?

18 A. Yes. It's one of the number of non-linear
19 editors in the industry.

20 Q. As far as the images, the bit or the tip
21 file --

22 A. Bitmap.

23 Q. Yeah. What part of Adobe, if you used Adobe,
24 did you use for that, or did you use another software for
25 the enhancement of --

1 A. No. The bitmap will -- I mean, Adobe Premier
2 Pro will pull off every bitmap of every frame of any file
3 that it can read.

4 Q. All right. I believe you enhanced some of
5 those, didn't you?

6 A. Yes.

7 Q. The bits, what software did you use for that?

8 A. Usually, it would be Photoshop.

9 Q. That's contained within the Adobe Premier
10 software?

11 A. It's a separate program, but it's still part of
12 Adobe.

13 Q. Okay. Again, an industry standard?

14 A. Photoshop really is the industry standard for
15 imaging, yes.

16 Q. Now, Photoshop, as far as their filters, when
17 you had your discussion about interpolation, we talked
18 about Nearest Neighbor and we talked about Bicubic?

19 A. Bicubic Smoothing.

20 Q. Well, there's Bicubic and Bicubic Smoothing?

21 A. Yeah, there's a couple others.

22 Q. Yeah, I'm sure there are.

23 Those are filters within Adobe Premier Pro?

24 A. They may be. We use Photoshop. That's what
25 most people use, but you can do some of that certainly

1 with the Premier pro.

2 Q. Okay. I was going to get to the next one.
3 Photoshop also has both of those filters?

4 A. Yes.

5 Q. And as you indicated, Photoshop is the industry
6 standard as far as forensic examiners and doing the work
7 like you do?

8 A. Well, Photoshop is the industry standard for
9 imaging.

10 Q. For images?

11 A. Forensically we use it. It's not specifically
12 set up for forensics. That's not direct -- what the
13 developers of Photoshop use. We use it because it's
14 great, but it's not specifically for forensics.

15 Q. People engaged in forensic examination of
16 photographs, though, do use Adobe Pro?

17 A. Right. Adobe Pro.

18 Q. I'm sorry, Photocopy. I looked down at it
19 wrong.

20 A. Oh, yeah, yeah. Like I said, it's what
21 everybody in imaging, not just forensic people use. It's
22 an unbelievably good software program.

23 Q. And as we talked about before, within that
24 software program it would be the preference of the
25 examiner as to what filters he or she may use in order to

1 produce a product that that particular examiner feels is
2 the best quality that can be produced?

3 A. Okay. Are you talking about enlarging it or
4 just filtering?

5 Q. Just filtering.

6 A. Oh, filtering, absolutely. We talked about
7 that before.

8 Q. All right. Now, when we talked about Bicubic
9 and Nearest Neighbor, again with -- when I looked down I
10 did the same thing, Photoshop.

11 Again, it is the preference of the examiner as
12 to whether or not -- which interpolation filter or
13 application within that program is used in order to
14 produce whatever that examiner feels is the best product?

15 A. I would absolutely disagree. I can't believe
16 anybody could agree with that.

17 First off, you never do interpolations at all.
18 That's why you use Nearest Neighbor, because it doesn't
19 interpolate. Interpolate means you're letting some
20 algorithm make -- you know, I hate to use the word
21 "guesses," but it just makes an educated guess what it
22 thinks it should be.

23 As you saw on the example we gave, it took six,
24 you know, pixels that were in a rectangle and made them
25 into kind of a -- what you want to make it, a circle or a

1 square. It was completely different from the original.

2 So the answer is using that function as an
3 artistic type of thing is excellent. In other words, if
4 you had a family picture and you wanted to blow it up,
5 what would I tell you? Go in there and try all of them
6 and see what the results were and see what you like.

7 It's not going to make more detail. It will
8 actually reduce the detail, and if you like one better
9 than the other, I would tell you to use that, but
10 forensically you're changing the whole image.

11 Like I said in the example I gave you, you end
12 up with only 1.3 percent of the original pixels in the
13 image, that -- you can't get -- forensically, you can't
14 change it. It's got to stay the same. You can blow it
15 up as big as you want, but you've got to keep the image
16 intact.

17 It's not a filter. It's definitely a
18 degradation of what's happening. But from an artistic
19 perspective, fine. Forensically, no.

20 Q. Now, we talked about when we -- whether or not
21 we did interpolation or we used the filters, you
22 discussed with Mr. Escobar that we don't -- we -- as an
23 examiner, you don't like to work with the first original
24 or the first clone. You make a working copy so you'll
25 always have something as you go back and compare.

1 Do you remember that line of testimony?

2 A. Absolutely, yes.

3 Q. All right. And that's the same with
4 interpolation, right? You can use whatever you want to
5 enlarge it. And if you can go back and look at the
6 original raw first copy, whatever, that hasn't been
7 touched. Then someone can look at it and if they look
8 the same, they look the same, right?

9 A. But -- no, I really don't agree. In other
10 words, filtering is one thing. Interpolation means
11 you're putting pixels there that never existed.

12 Enhancement means: Oh, yeah. You lighten some
13 areas, sharpen some areas. Interpolation means: Gee.
14 The example I gave, 98.7 percent of the pixels in your
15 new image never existed in the original.

16 Q. Okay.

17 A. It's just made up by the computer.

18 Q. And how does that change the content to the
19 viewer? Let me give you an example:

20 Take a picture of my hand, and then you use the
21 interpolation, if you will, to make it bigger, and all of
22 a sudden my hand's over here.

23 Now, according to you, it's not the same, even
24 though if you look at my index finger, it might be a
25 two-to-one ratio, but because I only have a percentage of

1 the pixel over here on the large one and I don't have all
2 the originals on the smaller one, nobody can see the
3 difference. Is that what you're telling me?

4 A. I'm not telling you that at all. You looked at
5 my example --

6 Q. I did, and I'll get to that in a minute.

7 A. But everybody in that example could clearly see
8 what we started with and what we came out with were
9 drastically different. They didn't seem to be related to
10 each other.

11 Q. When you used Nearest Neighbor and compared it
12 to the raw?

13 A. Well, Nearest Neighbor doesn't change it at
14 all. It's not interpolating the raw.

15 Q. That's what I'm saying.

16 A. There is no interpolation. You properly used
17 Nearest Neighbor and the magnifications that I talked
18 about.

19 If you use Bicubic at all -- and again, I'm not
20 against if somebody wants to use them artistically, but
21 forensically, I know of no one that's ever told me: You
22 make an enlargement and it's just completely changed.

23 It's not a P filtering process. It's a process
24 where you degrade the original so you can get more
25 pixels.

1 Q. And then we go back and look at the original,
2 and then the viewer can decide for themselves whether or
3 not they're the same or not the same, right?

4 A. I know. I know that somebody could do that, I
5 just don't agree. It's not like filtering.

6 Why would I absolutely downgrade the quality of
7 an image and make it so it doesn't even relate in some
8 ways to the original except in a very general way and
9 give that to somebody? That's not what you do
10 forensically.

11 You know, I don't know of anyone that has an
12 engineering science background and works at imaging that
13 would ever do that. That would be -- that's a rookie
14 mistake.

15 Q. Now, this is mentioned -- I just want to talk
16 about Newest Neighbor just a little bit.

17 I believe you indicated on direct when you use
18 Newest Neighbor in order to make an enlargement, you can
19 actually go back and identify the pixel that was
20 actually -- what do you want to call it -- a copy or a
21 clone, you know, based on your little four-square
22 example?

23 A. As long as you make it in this case, you end up
24 with a square each time. So you enlarge it, magnify it
25 double or then -- or, you know, four times, but you

1 always end up with squares. What's in each square from
2 the original pixels are just duplicates of it.

3 Q. Okay. Now, when you use the software program
4 to resize or to enlarge as far as with Nearest Neighbor,
5 that also uses an algorithm; does it not?

6 A. But it just repeats the pixel.

7 Q. It still uses an algorithm?

8 A. Well, sure. Everything is done with an
9 algorithm.

10 Q. Okay. And, of course, as a forensic examiner,
11 you don't have access to that proprietary source code
12 regarding that particular application of Nearest
13 Neighbor? You don't have all the line of code of that
14 algorithm to know what it does, do you?

15 A. Well, it's kind of two questions. I don't have
16 the source code, I agree with that. But I know exactly
17 what it does.

18 Q. Okay. But do you know the algorithm? Can you
19 go up to that chalkboard and write up an algorithm?

20 A. Of course, you realize the algorithms might
21 have 50,000 lines of code?

22 Q. That wasn't my question. Can you do it?

23 A. Even if I knew it, I couldn't remember.

24 Q. But you don't know it, do you?

25 A. I know what the code does. When you do

1 Bicubic, yeah. There's stuff online that tells you
2 mathematically somewhat what to do, but you don't know
3 how it makes all those other new pixels. They don't have
4 it.

5 Q. There's --

6 A. There is no interpolation. Nearest Neighbor
7 and those magnifications takes eighty pixels. If you
8 want to make it 200 percent, it makes it three more times
9 and makes a square, but it does that with every pixel in
10 there, so you end up with exactly what you started with,
11 just enlarged.

12 It's very straightforward. It's, you know, a
13 very common algorithm.

14 Q. Yeah?

15 A. I don't know the source code. It would vary by
16 the program, if anything. But second, I know exactly
17 what it does.

18 Bicubic, yeah, even the people that write the
19 software couldn't tell you on a particular image exactly
20 what it's going to look like when it gets done. You
21 know, it just varies by what colors are there, how dark
22 it is, how light it is. All those parameters affect the
23 result.

24 Q. What we saw when you enlarged with Nearest
25 Neighbor is we saw that blocking effect that you've

1 talked about, that pixels get large, they're squared. By
2 the time you blow it up -- I think it was almost 400
3 percent -- the whole picture was just a bunch of blocks.

4 A. That would exactly imitate what was in the
5 original image.

6 Q. A bunch of blocks.

7 A. Well, that's what was in the original image.

8 Q. Okay. So what we've done with the original
9 image is we've blown it up so that we can see all of the
10 blocks that were there. Is that what you're doing with
11 Nearest Neighbor?

12 A. Nearest Neighbor, we take a pixel. You
13 duplicate it exactly so you end up with a square. It
14 always has to be a square if you don't want to change
15 anything, right? And then when you blow it up, just like
16 we showed you with both the original and in four
17 magnifications and six, the new block -- because there's
18 more pixels in it, but they're all the same -- look
19 identical to the original information. There is no
20 change other than it now has more pixels and it's larger.

21 Q. You're familiar with the cartoon character
22 Charlie Brown?

23 A. I think after Schultz died -- I think it's
24 actually been around for a while, but, yeah.

25 Q. That wasn't my question.

1 A. Oh. I saw it as a kid, yes.

2 Q. A round-headed kid?

3 A. Yes.

4 Q. Now, if you took a picture of Charlie Brown,
5 that round-headed kid, and you blew it up with Nearest
6 Neighbor, you might be able to discern that his head is
7 round, but it will be all blocked, right?

8 A. Yeah. If --

9 Q. That's exactly what would happen?

10 A. If the original was blocked, then the copy
11 would be blocked that's blown up that way. It wouldn't
12 change anything. It would be exactly the same.

13 Q. But what the viewer would see would be not
14 Charlie Brown's nice, soft, round edges, round face, but
15 it would be blocked just like if you would make it out of
16 Legos, right?

17 A. I'm saying that if the original was blocky,
18 then the blow-up would be blocky. It will not change the
19 image at all other than to make it larger.

20 Q. So you're telling me with Nearest Neighbor, the
21 Charlie Brown, if you blew it up for that 400 percent
22 like you did, he's going to have that nice, round, smooth
23 circle around that nice, round head of his? That's what
24 we are going to see?

25 A. If the original was that smooth, when you blow

1 it up it will stay smooth. If the original was blocky,
2 as you call it, it would be the same when you blow it up.
3 It's exactly the same. It doesn't change anything. It
4 stays -- that's why everybody uses it. It's is exactly
5 the same.

6 Q. I understand that the pixels are going to
7 remain the same, but the viewer sees --

8 A. No. It wouldn't change it, no.

9 Q. Okay.

10 MR. MARTIN: Let me just take a moment, Judge.
11 I think I'm almost done.

12 BY MR. MARTIN:

13 Q. When you produced the DVD that we've been
14 playing, what compression method did you use? I didn't
15 hear that. Maybe I missed it.

16 A. We wouldn't have compressed. You mean like the
17 bitmap and stuff like that?

18 Q. No, I mean the DVDs that were being played, the
19 videos themselves?

20 A. Well, if it's a video DVD, then it's got to be
21 in that format.

22 Q. Okay. And you used DVD format?

23 A. Well, you can't put it on the DVD without it
24 being that format. You burn it to the -- you know, if
25 it's a Beta, it's exactly what it was before.

1 Q. Okay. Do you know what the aspect ratio of
2 that, 35 to 1? 42 to 1? When you convert it, when you
3 take the raw data, the event file and put it in to a DVD
4 format --

5 A. It becomes more rectangular on the VHS, a more
6 rectangular pixel. It goes from 480, 640, to 480-by-720,
7 but the pixel aspect ratio is corrected when it's played
8 back, so it comes back looking correct.

9 Q. How many forensic cases have you done in which
10 the proprietary software was GeoVision?

11 A. Probably not that many. Maybe 30 or 40. I
12 don't -- we get a lot of them in. Certainly stores use
13 that exact software that get sued a lot, so big
14 department stores. That's why we get a lot from this
15 particular one.

16 Q. We talked about the content highlights, and I
17 think we had some video. I think -- I got little
18 confused with the exhibit number, but I think it's
19 admitted, Exhibit Number 9. That's where we had the
20 red -- I will call it the square. If I could remember it
21 right, there's a red square, a yellow circle or a red
22 circle and a yellow circle.

23 A. Well, Number 9 is actually Q6, so that's not
24 it.

25 Q. Well, you know what I'm talking about?

1 A. I know what you're talking about.

2 Q. You put the red over a particular area of
3 interest that was provided to you by the Defense. That's
4 what your testimony was?

5 A. Absolutely.

6 Q. Okay. Now, after doing that, tell us, if you
7 can, what is the distance between that object or whatever
8 that is that you circled in red and the floor where the
9 seat is sitting on?

10 A. I don't know.

11 Q. When we are dealing with video, we're dealing
12 with two-dimensional, not three?

13 A. That's correct.

14 Q. Did you take it upon yourself, as far as that
15 area that you circled in red, to track that and correlate
16 that with any other movement within the video?

17 A. No.

18 Q. When we talked in the very beginning in the
19 direct examination about how movement assists the viewer
20 in determining content, would that be something helpful
21 for the viewer to actually see the movement that is
22 associated and corresponds or happens contemporaneous
23 with the appearance of the -- whatever it is that you put
24 the red circle in?

25 A. That was more like a legal question than a

1 technical question. I don't know the answer to that.

2 Q. Well, you and I had that conversation about
3 content and movement. Do you remember all that
4 conversation about throwing the ball and the catch?

5 A. I know, but I would have to know, what are you
6 trying relate it to in the picture?

7 Q. I'm asking you as a forensic examiner, did you
8 take any effort in order to attempt to see if there was,
9 in fact, movement within the video that can be discerned
10 with the human eye that tracks the appearance of the
11 object that you circled in red? That's a yes or no.

12 A. No.

13 Q. Either you did or didn't.

14 A. No.

15 Q. Do you think that that would be helpful for the
16 viewer who is trying to make an informed decision about
17 what is actually occurring within the video to view it in
18 that manner, to see the movement, the fluid movement as
19 that particular red dot appears -- or whatever that is
20 circled -- appears and disappears within the video?

21 A. Well, they can view it and decide if that's
22 helpful to them. That's how I feel about it. There's no
23 measurement that I can take scientifically that's going
24 to help them.

25 So the answer is somebody can watch it or view

1 the video or view images, still images, and decide if
2 they draw a conclusion from that.

3 Q. So I assume from that your answer is yes, a
4 viewer can do that. They wouldn't be absolutely wrong
5 for doing that. That's why --

6 A. No. I mean, people can look at the video and
7 see what they see.

8 Q. Fair enough.

9 MR. MARTIN: Thank you for your time this
10 afternoon.

11 THE WITNESS: Well, thank you.

12 MR. MARTIN: Judge, thank you.

13 THE COURT: Thank you, Mr. Martin.

14 MR. ESCOBAR: No need for any further
15 questions.

16 THE COURT: Thank you. May this witness be
17 released?

18 MR. ESCOBAR: This witness can be released.

19 THE COURT: Thank you, Mr. Koenig. You're free
20 to go.

21 THE WITNESS: Thank you, Your Honor.

22 (Witness excused.)

23 MR. MARTIN: I kept my promise.

24 THE WITNESS: Yes, you did. Didn't we have one
25 more witness?

1 MR. ESCOBAR: I've blown my entire lineup
2 completely. So we were hoping to get at least two
3 to three more witnesses in today and we just
4 couldn't. We had no -- we knew we were running
5 late, so we will revamp our lineup for tomorrow.

6 THE COURT: Okay.

7 MR. ESCOBAR: Mr. Peck was released by me much,
8 much earlier. I wasn't going to keep him here all
9 day.

10 MR. GARCIA: Judge, we're going to need
11 tomorrow's witnesses this afternoon, obviously, in
12 order for us to prepare.

13 MR. ESCOBAR: We are going to group up now and
14 see how we're going to do that.

15 THE COURT: All right. Let's keep in mind if
16 we need to work earlier and later, I'm fine with
17 that.

18 MR. ESCOBAR: Tomorrow may be a good day for us
19 maybe to work a little later. We may be able to
20 expand our lineup a little bit, and that may help
21 us.

22 THE COURT: All right.

23 MR. ESCOBAR: I'm going to call everybody
24 tomorrow. We're trying accommodate the witnesses as
25 well, so I can tell you there's a couple witnesses

1 that had tests here, we're trying to fit them in
2 where it best fits them.

3 So I'll give Manny a list either right before
4 we leave here or at least within an hour of us
5 getting back, trying to figure this out. I've got
6 to make some phone calls because now I've adjusted
7 the lineup of many of witnesses, and we've got to do
8 some work.

9 THE COURT: All right. You won't be able to
10 gave them a ballpark?

11 MR. ESCOBAR: He's got my cell phone number,
12 and I will have to -- I'll give him a few of the
13 ones that I think we'll definitely be calling.

14 MR. GARCIA: At least so we can start --

15 MR. ESCOBAR: As soon as we group up here, we
16 will give him a few.

17 MR. GARCIA: You don't know the few now?

18 MR. ESCOBAR: No. But he and I will talk early
19 tonight, so that he can be prepared.

20 THE COURT: All right. So you're going to get
21 a ballpark shortly, perhaps, before everybody
22 leaves, at least before you guys leave and they
23 leave?

24 MR. ESCOBAR: Absolutely.

25 THE COURT: And then --

1 MR. ESCOBAR: Then I'll call some witnesses and
2 then I'll call him back.

3 THE COURT: On others?

4 MR. ESCOBAR: Yes.

5 THE COURT: All right.

6 Any other matters we need to address before
7 tomorrow?

8 MR. ESCOBAR: No, Your Honor.

9 THE COURT: Well done, everyone. We will
10 reconvene at 9:00 a.m. tomorrow morning.

11 Madam Court Reporter.

12 THE REPORTER: Yes, ma'am.

13 (Proceedings concluded for 02/21/17.)
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