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1 THE COURT: Please be seated.

2 Good morning. We are back on the record
3 today in USA versus McCluskey, CR-10-2734, and we are
4 ready to proceed with our Daubert hearing.

5 But before we do, let me ask about time
6 frame, scheduling. As you-all know we set aside two
7 days for this hearing. How is it looking?

8 MS. MOTT: Not very good.

9 THE COURT: I didn't think so, but I was
10 hoping you would tell me otherwise.

11 MS. MOTT: Mr. Burt and I discussed this
12 last night, in regards to how we might want to
13 propose to the Court how to proceed.

14 The government still has one more witness
15 who's not a Daubert witness, but our firearms
16 examiner who's prepared to give 702 testimony.

17 And then, obviously, Mr. Burt has Adina
18 Schwartz here. And in terms of time frames of those
19 witnesses, Ms. Babcock is probably going to be the
20 shorter of the two. And so our proposal to the Court
21 is possibly to wrap up with Ms. Babcock today and
22 then have available time to discuss the jury data.
23 What that would entail, obviously, is resetting
24 another day for Ms. Schwartz to come back and finish
25 up the Daubert testimony.

1 MR. BURT: There is one thing, actually,
2 which she just reminded me of. There is one
3 additional witness, Mr. Pasternak, from the crime
4 lab, who's going to be very brief. And I think we
5 can also fit him after Ms.- -- after the crime lab
6 person. And then that would take us up to a point in
7 time when we could discuss the jury issues.

8 THE COURT: Well, I know everybody has
9 calendars and obligations. But I could offer you
10 tomorrow, at least half a day, maybe even the whole
11 day, if that would help.

12 MS. MOTT: I know our schedule is open for
13 that, Your Honor. So I think there's some conflicts.
14 And I know Mr. Warbel leaves tomorrow back to
15 Washington, so I don't know if we could allot a time
16 this afternoon to kind of stop and allow him -- he's
17 the one who is going to be discussing the jury data
18 and the questionnaires.

19 THE COURT: Okay.

20 MR. BURT: Yeah. That works for us, if
21 that is what the Court would like to do. Your Honor,
22 that is fine with us.

23 Mr. McCluskey raises an issue about a
24 family visit that he has tomorrow. He is willing to
25 waive his appearance for tomorrow's proceedings so

1 that he can keep that family visit, and is prepared
2 to do that on the record, if that's acceptable to the
3 Court.

4 Our expert is available, we're prepped to
5 proceed tomorrow, if the Court's available.

6 THE COURT: All right. So then it looks
7 like we can proceed tomorrow, but we'll have to
8 figure out what time we should turn our attention to
9 the questionnaire.

10 MS. MOTT: Yes, Your Honor. And what we
11 can do is, as soon as Mr. Murdock is finished, the
12 government will put on Ms. Babcock.

13 Like I mentioned before, her testimony is
14 much more capsulated, and I'm hopeful that we can get
15 that done by early this afternoon and then have the
16 time available. If not, we'll stop at some point.

17 MR. WARBEL: Well, Judge, I don't know. I
18 think we're going to -- we were hoping that you were
19 going to drive the discussion of the questionnaire.
20 We discussed that yesterday as far as what issues
21 we'd like to raise. We can -- I am flexible, Judge.
22 And if necessary -- I would like to get out of here
23 tomorrow morning. But if necessary, I can be here
24 tomorrow as well.

25 THE COURT: Well, you know the

1 questionnaire, there are issues that we need to
2 address. But frankly, a lot of it is not -- it's
3 pretty self-explanatory. There may be some issues
4 that we need to discuss. But if you're looking at
5 what questions I may have as opposed to issues that
6 you-all just really feel that you need to address, it
7 may be workable to get that done this afternoon.

8 All right. Well, we'll look at reconvening
9 then again tomorrow morning and see if we can wrap
10 this portion of the Daubert hearing up.

11 MR. BURT: Did the Court want to take a
12 waiver from Mr. McCluskey while we are thinking on
13 that topic?

14 THE COURT: Sure.

15 Now, Mr. McCluskey, as you know, you have a
16 right to be present at every proceeding in your case.

17 THE DEFENDANT: Yes, ma'am.

18 THE COURT: And we have started this
19 hearing with the idea that we would be able to
20 conclude it in two days, and it looks like we're
21 going to have to extend this proceeding into
22 tomorrow.

23 And I understand that you have a family
24 visit scheduled, and you'd like to keep that
25 tomorrow?

1 THE DEFENDANT: Yes, from out of state.

2 THE COURT: Okay. So we will be in court
3 tomorrow on your case, and you have every right to be
4 here. But as I understand it, you waive -- do you
5 waive your right to be here tomorrow?

6 THE DEFENDANT: Yes.

7 THE COURT: Okay. And it's okay with you
8 that we continue with the proceedings, and your
9 attorneys will be here and act on your behalf, even
10 though you are not here?

11 THE DEFENDANT: Yes.

12 THE COURT: All right. And you're okay
13 with all of that?

14 THE DEFENDANT: Yeah.

15 THE COURT: Okay. Thank you.

16 MR. BURT: Thank you, Your Honor.

17 JOHN MURDOCK, GOVERNMENT'S WITNESS, PREVIOUSLY SWORN

18 CROSS-EXAMINATION

19 BY MR. BURT:

20 Q. Good morning.

21 A. Good morning, sir.

22 Q. Let me return to a topic we discussed
23 yesterday, just to make sure I understand it.

24 You have Exhibit H in front of you there?

25 A. Yes, I do.

1 Q. And turn, if you would, to page 665.

2 A. I have it in front of me.

3 Q. Okay. And Note 70, do you see that?

4 A. Yes.

5 Q. It says: "Two schools of thought dominate
6 firearms identification practice, an intuitive
7 know-it-when-they-see-it school and a slowly growing
8 scientific school."

9 Is that a true statement?

10 A. There are two schools of thought, but I don't
11 think it's an accurate statement.

12 Q. And what's inaccurate about it?

13 A. The intuitive school of thought that is -- that
14 is labeled as pattern matching, is, in my opinion, a
15 scientific school of thought also, in that it has --
16 the ability to do that has been honed by a large
17 amount of empirical testing. The intercomparison of
18 known non-matches and the comparison of known
19 non-matches. And it is by doing both of those groups
20 of comparisons that examiners develop an ability to
21 recognize the difference between those two groups.

22 And they do it by using the powers -- the
23 analytical powers of the brain when they're looking
24 through the comparison microscope. And that -- that
25 ability has been aided by all of the empirical kinds

1 of tests that we have -- we talked about a lot
2 yesterday.

3 Q. And as I understand the way that method works,
4 the examiner, without counting any striations, holds
5 in his or her mind an image of the best known
6 non-match that he or she has seen and then compares
7 that mental image in his or her mind to the evidence
8 being examined?

9 A. That's correct.

10 Q. And then makes a subjective determination of
11 whether it's a match or not?

12 A. That's correct.

13 Q. That's what is known as the intuitive school,
14 correct?

15 A. Of pattern matching, yes.

16 Q. Okay. And when the reference in this footnote
17 is to the slowly growing scientific school, is
18 that -- and I understand you have a difference in
19 terms of whether the first intuitive approach is
20 scientific. But is the slowly growing scientific
21 school method the QCMS method that we discussed
22 yesterday?

23 A. Yes.

24 Q. Is that what's being referred to?

25 A. Yes, I think so. Although the author didn't

1 say that, I think it is.

2 Perhaps it explains it in the text, I don't
3 know.

4 Q. Yes. All right. And so the two basic methods,
5 the QCMS method and the intuitive method, are the two
6 schools of thought?

7 A. But they're really not two different methods.
8 Everybody uses --

9 Q. Okay.

10 A. -- everybody uses pattern matching.

11 Q. Two schools of thought. Would that be an okay
12 way to say it?

13 A. Yes.

14 Q. All right. And so of the two schools of
15 thought the QCMS method -- I think we talked about
16 it, but I don't think you described what the
17 numerical standard was under that method.

18 A. No, we didn't.

19 Q. Yeah. Could you tell me what it is, just so we
20 have that?

21 A. Certainly. As a result of a lot of empirical
22 testing, my co-author, Al Biassoti, and I offered up
23 in the first edition of this chapter in 1997 the
24 quantitative criteria. And it differed between what
25 we call three-dimensional striated toolmarks and

1 two-dimensional striated toolmarks.

2 And if you'd like me to, at some point I
3 could describe the difference between two dimensional
4 and three dimensional.

5 Q. Well, I think now what I'm interested in is
6 what's the numerical formulation?

7 A. The numerical formulation is, for
8 three-dimensional striated marks, two groups of three
9 consecutive CMS or one group of six.

10 And for the two-dimensional striated
11 toolmarks it's two groups of five or one group of
12 eight consecutive matching striae.

13 But to apply either of those criteria it's
14 critical to eliminate the possibility of subclass
15 influence.

16 Q. All right. And for the comparison that was
17 done in this case, that is the breech face cartridge
18 case comparison, is that a two-dimensional or a
19 three-dimensional process?

20 A. That is a three-dimensional process.

21 Q. All right. So if you --

22 A. Usually.

23 Q. If you were using your QCMS method, then how
24 many points of identity would you require in order
25 to -- and "points of identity" is loosely phrased

1 here. But how many points of comparison would you
2 need in order to make an identification?

3 A. Well, it wouldn't be appropriate, actually, to
4 use that criteria for that particular mark because
5 it's an impressed mark.

6 Q. Okay.

7 A. And the criteria applies to the scratch mark,
8 those of the -- those are the friction, the sliding
9 marks, that create scratches.

10 Q. So as I understand it, the QCMS method only
11 applies to a striated mark, not an impressed mark?

12 A. Correct.

13 Q. And an impression on a cartridge case in this
14 particular case is an impressed mark?

15 A. Yes.

16 Q. But in other cases it can be both an impressed
17 and a striated mark?

18 A. That's correct.

19 Q. But in this particular case, the only thing we
20 are talking about is an impression mark?

21 A. I believe so. Like I said yesterday, I -- I
22 didn't really do a complete critical analysis of all
23 of the -- all of the case notes in this case. But I
24 do remember one instance, and we talked about it
25 briefly at the end of yesterday.

1 Q. Yes. We are going to get to a photograph here
2 in a minute.

3 A. Okay. That was an impression mark.

4 Q. An impression mark. So for that kind of thing
5 you cannot use QCMS?

6 A. Correct.

7 Q. So the only method or school of thought that's
8 left to use is the intuitive approach?

9 A. Yes.

10 Q. And that's the method you understood was used
11 in this case, not the QCMS method?

12 A. That is correct.

13 Q. Okay. Now the exhibits -- the Government
14 Exhibit Number 9, that's the 94-page submission that
15 you made to the presidential subcommittee. Do you
16 have that in front of you?

17 A. I'm looking for it. Yes, I do have it.

18 Q. What is it that these publications you have
19 listed in this 94 pages, what is it that they purport
20 to validate? Is it the QCMS school of thought? Is
21 it the intuitive school of thought? Or is it both?

22 A. Both are represented here.

23 Q. So it's your opinion that this literature,
24 which is summarized here, would establish the
25 validity and reliability of both schools of thought?

1 A. Yes.

2 Q. And short of the Court actually reviewing the
3 articles and looking at them to see if they were
4 properly constructed and their methodology is sound,
5 is there any other way that we would have to know
6 whether the studies say what you represent they say,
7 other than taking your word for it? Would there be
8 any other method that you could see?

9 Because these are -- let me back up.

10 These are not the actual studies. These
11 are your summary of what the studies purport to show,
12 correct?

13 A. The studies -- the actual studies are cited.
14 And it is -- it was never our intent to have
15 reviewers simply consider the abstracts. The only
16 reason the abstracts are there is because the
17 RDT&E IWG, the IWG group, asked us to provide
18 abstracts.

19 I would certainly hope that the group
20 that -- hopefully, some -- if they select -- if they
21 ever get the financial support to select the group
22 that would be charged with reviewing these, hopefully
23 all of them, I would hope that they would go to the
24 original sources and read them.

25 Then, I certainly wouldn't think for a

1 moment that they would just look at the abstracts and
2 evaluate the propriety of the article based on the
3 abstract.

4 Q. Right. And short of actually reading the
5 studies there would be no way to really -- if someone
6 were trying to assess the validity and reliability of
7 your field, short of actually reading the articles,
8 there's no way that you can do that simply by looking
9 at your summaries of what the articles say?

10 A. That's right.

11 Q. Okay. And you have not provided -- or you have
12 not provided to the Court, at least in the government
13 exhibits -- the actual studies cited in these
14 summaries, correct?

15 A. I'm -- I feel certain that some of them have
16 been provided, but certainly not all of them.

17 Q. All right. Now, one of the studies that you
18 cite in that compilation -- and by the way, one
19 reason why these NRC committees are traditionally
20 brought together is to do those kind of evaluations,
21 correct?

22 A. They're brought together to do evaluations,
23 yes.

24 Q. I mean throughout your experience in the
25 forensic science fields, there have been various NRC

1 reports that have focused on the reliability and
2 validity of certain forensic techniques, right?

3 A. Yes.

4 Q. DNA, for instance. There are reports on DNA?

5 A. In fact there are two of those, yes.

6 Q. And polygraphs, there was another one on
7 polygraphs, right?

8 A. I'm not familiar with that one.

9 Q. Okay. But the general purpose of these NRC
10 committees is to take a group of reputable scientists
11 and to have those scientists review the scientific
12 validity of a certain field and then report back on
13 their findings so that somebody like a Court, who
14 maybe doesn't have the time to go through 94 pages of
15 literature, can rely on somebody else's assessment to
16 determine the reliability of the field.

17 Isn't that generally the way it's supposed
18 to work?

19 A. Well, ideally, it's supposed to work that way.

20 Q. Right.

21 A. But these committees sometimes are not charged
22 with that. In fact, the ballistics committee was
23 simply charged with seeing whether or not that
24 methodology would work for a vast amount of
25 information.

1 Q. Right. And it's your view that if the
2 committee was charged with a certain task, and in the
3 course of that task they found it necessary to review
4 the validity of the scientific literature, and they
5 comment on that literature in an unfavorable way,
6 your view is because they were not tasked with
7 looking at that literature nobody should look at
8 their conclusions, because the original task didn't
9 define them looking at the literature; and,
10 therefore, anything they say about it has no import.

11 Would that be a fair assessment of your
12 theory on that?

13 A. That would be a totally unfair assessment.

14 Q. And why is that?

15 A. Anybody can look at any of those reports.
16 Those are available for anybody to look at.

17 In the case of -- I assume you're referring
18 to the ballistic imaging, the NRC report of 2008?

19 Q. Right.

20 A. I think they did a very good job on the main
21 charge that they had. And we say that -- AFTE says
22 that in their response.

23 I think the charge -- I think that charge
24 was well thought out, well documented, and I agree
25 with the conclusion.

1 Q. Right. Which has nothing to do with their
2 review of the reliability of the literature.

3 A. Yes.

4 Q. Right?

5 A. Yes.

6 Q. So let's talk about that part.

7 A. In my opinion they did not do a thorough job,
8 and it was not their charge, and they say so. It was
9 not their charge to review the propriety of the
10 identification of firearms and toolmarks evidence.

11 And they said it in their report, and then
12 the chairman, Dr. Rolph, reiterated it in his court
13 document.

14 Q. Right. And so looking at their evaluation of
15 the literature, your focus is not on whether their
16 evaluation is accurate or inaccurate; your focus
17 continuously here is, but that isn't what they were
18 tasked to do, right? That's what you want to focus
19 on, because you keep repeating that.

20 A. I keep repeating it because you keep asking me
21 about it.

22 Q. No. I'm asking --

23 A. But that's not my main focus.

24 Q. Your main focus is not on whether their review
25 of the literature is accurate. Your main focus seems

1 to be, oh, but that wasn't their task. And Dr. Rolph
2 said afterwards that wasn't their task.

3 Isn't that what you want to talk about?

4 A. No. My main focus is that their review of the
5 scientific underpinnings of our field was not
6 complete, it wasn't thorough, and it wasn't
7 definitive.

8 And the reason why, I think, is because
9 that wasn't their charge and they say that in their
10 document.

11 Q. And of course somebody who reviewed the pages
12 that I cited to yesterday, where they actually do
13 review in detail the literature, might come to a
14 different conclusion, correct?

15 A. They might. But most of that stuff, like I
16 pointed out yesterday, dealt with longevity studies,
17 because that's what they should have looked at.

18 Q. Now, one of the papers that you cite in your
19 94-page summary is on page 30, an article by Stephen
20 Bunch. Do you see that, on page 30 of Exhibit 9?

21 A. Yes.

22 Q. Okay. And Stephen Bunch, at the time you wrote
23 the article, you cite was a firearm toolmark unit
24 supervisor at the FBI lab in Washington, correct?

25 A. He was.

1 Q. Okay. And what is your understanding of what
2 that article says?

3 Well, first of all, is that a validity
4 study?

5 A. It was a critique of the use of quantitative
6 CMS.

7 Q. Is it a validity or a reliability study?

8 A. It's neither.

9 Q. Okay. So some of these articles that you've
10 got cited here are not validity or reliability
11 studies, correct?

12 A. That's right.

13 Q. And can you tell us which ones are not and
14 which ones are?

15 A. No.

16 Q. The thrust, you just said of this article,
17 Mr. Bunch's article, is a critique of the QCMS school
18 of thought?

19 A. Yes.

20 Q. And what he says is that there's no scientific
21 basis for it, correct?

22 A. No, he doesn't say that. He says that more
23 study would be needed.

24 But he approached it, actually, from a
25 Bayesian standpoint, and we don't use the -- we don't

1 use the Bayes' theorem in the United States like they
2 do in Europe.

3 MR. BURT: May I approach the witness,
4 Your Honor?

5 THE COURT: You may.

6 BY MR. BURT:

7 Q. I'm showing you Exhibit O.

8 Is that the article that we're talking
9 about?

10 A. Yes.

11 Q. On the first page of the article, the first
12 paragraph, does he say: "An objective
13 decision-making regime" --

14 A. Where are you? I'm not --

15 Q. The first page, the first paragraph.

16 A. At the beginning?

17 Q. Yes. Where it says -- the paragraphs starts,
18 "Since Al Biassoti" --

19 A. All right.

20 Q. He says, does he not: "An objective
21 decision-making regime which purportedly describes
22 the counting of striations appears more likely to
23 successfully meet a Daubert challenge than does the
24 subjective regime that currently prevails in the
25 discipline."

1 He says that, right?

2 A. You told me you started at the beginning of the
3 paragraph. You didn't. You start at about the
4 middle, and I have just caught up with where you
5 started.

6 Q. Okay. Did I read it accurately?

7 A. Yes, you did, that one sentence. You read one
8 sentence, right?

9 Q. Yes.

10 A. Yes.

11 Q. Right. And do you agree with that statement,
12 that: "An objective decision-making regime which
13 purportedly describes the counting of striation
14 appears more likely to successfully meet a Daubert
15 challenge than does the subjective regime that
16 currently prevails in the discipline"?

17 A. That could certainly be possible, yes.

18 Q. Is it true that the subjective regime currently
19 prevails in your discipline and not the QCMS method?

20 A. I don't know what the percentage is now. I
21 think there's an increasing -- as classes are given,
22 and they are given on an ongoing basis.

23 I think as classes are given and people
24 understand really what QCMS is and isn't, the use
25 will increase. And that was also the conclusion of

1 the independent group that analyzed the responses
2 from the survey conducted by the California
3 Association of Criminalists from 2006 to 2007.

4 Q. I don't think you're responsive.

5 My question is: Is the subjective regime
6 the one that currently prevails, not what could
7 happen in the future.

8 What is the school of thought that
9 currently prevails in your field?

10 A. I don't know what the percentage is.

11 Q. Well, one measure of that might be to look at
12 the proficiency test, right? Because these
13 proficiency tests are given to hundreds of analysts,
14 and in the reports from CTS they summarize how the
15 examiners state their conclusions, do they not?

16 A. I don't believe they asked a person to
17 distinguish what method they used.

18 Q. But they asked them to state how -- what their
19 conclusions are, right?

20 A. Oh, certainly.

21 Q. And the way a conclusion looks under the
22 subjective regime would be readily ascertainable from
23 the way it looks under your regime, would it not?

24 A. No.

25 Q. Why not?

1 A. There wouldn't be any difference.

2 Q. Well, I thought the QCMS regime identified
3 points of similarity and had a numerical value to it.

4 A. Well, you could certainly see that in a
5 person's notes, but the reports would look the same,
6 whether you used strict pattern matching or whether
7 you describe the agreement that you were seeing,
8 which is all QCMS does, by quantifying the number of
9 QCMS.

10 Q. Now yesterday you told us that, per your
11 PowerPoint, that in your field the standard is not
12 one of absolute identification, but of practical
13 impossibility of a another toolmaking mark?

14 A. A practical certainty, yes.

15 Q. A practical certainty?

16 A. Yes.

17 Q. What, in your mind, is the difference between
18 absolute certainty and practical certainty?

19 A. Well, absolute certainty would rule out every
20 other tool or gun in the entire world. And clearly,
21 we can't say that. Because in order to say that we
22 would have to look at all of those tools or guns.
23 And that's, clearly, an impossible task.

24 But a practical certainty means that the
25 chance that you could find another tool or gun would

1 make a mark that would agree so well is so small that
2 for practical purposes it can be disregarded.

3 Q. And within your field, that is not the way
4 people state their conclusions, correct? They simply
5 say, "This cartridge was fired by this weapon."

6 They don't say "to the practical exclusion
7 or absolute certainty." They don't characterize it
8 at all, other than saying, "This -- this weapon was
9 fired by this bullet"?

10 A. A lot of labs do it exactly how --

11 Q. "This bullet was fired by this weapon." I'm
12 sorry.

13 A. A lot of labs do it in the way that you just
14 described. But there are some labs, like ours, that
15 add that these identifications are made to a
16 practical, not an absolute certainty.

17 Q. Right. And in this particular case you
18 reviewed the lab reports, and you saw that they don't
19 use that language, do they?

20 A. I don't believe they do.

21 Q. What they say is, "This cartridge case was
22 fired by the weapon in this case"?

23 A. Yes.

24 Q. And that implies certainty, does it not? There
25 is no margin of error associated with that, there's

1 no qualification saying, "Well, this is a practical
2 versus an absolute certainty." It's a flatout
3 statement?

4 A. That can give the impression of absolute
5 certainty.

6 Q. Okay. And that's generally the way people in
7 your field express their conclusion. Isn't that
8 true?

9 A. It has been, yes.

10 Q. And if you look at these proficiency test
11 results, page after page is, "This firearm -- this
12 bullet was fired by this firearm."

13 A. Most of them do. However, my -- the way that
14 my results are stated are -- is not that way.

15 Q. And your results -- just give me an example of
16 how your results are expressed.

17 A. It would state that the identifications are
18 made to a practical and not an absolute certainty.

19 Q. Okay.

20 MR. BURT: Let me show you what I've marked
21 as P for identification. And this is --

22 MS. MOTT: Do you have a tab number?

23 (Discussion off the record between
24 Counsel.)

25

1 BY MR. BURT:

2 Q. P is your standard CTS proficiency test, right?

3 A. Yes.

4 Q. This one is one of the more current ones,
5 11527, correct?

6 A. Yes, it is.

7 Q. And one of the things they say -- they have a
8 disclaimer on the first page of these, right?

9 A. (No verbal response.)

10 Q. And this goes back to the issue we talked about
11 yesterday about using these tests as task-made error
12 rates?

13 A. Yes.

14 Q. What does the disclaimer say?

15 A. Do you want me to read the entire disclaimer?

16 Q. Right.

17 A. This is at the bottom of the first page of
18 Exhibit P. And it reads:

19 "This report contains the data received
20 from the participants in this test. Since these
21 participants are located in many countries around the
22 world, and it is their option how the samples are to
23 be used, e.g., training exercise, known or blind
24 proficiency testing, research and development of new
25 techniques, et cetera, the results compiled in the

1 summary report are not intended to be an overview of
2 the quality of work performed in the profession and
3 cannot be interpreted as such.

4 "The summary comments are included for the
5 benefit of participants to assist with maintaining or
6 enhancing the quality of their results. These
7 comments are not intended to reflect the general
8 state of the art within the profession."

9 Q. Okay. And then if you look at page 9 of that
10 exhibit, this summarizes all the conclusions of all
11 of the people being tested here, right?

12 A. Yes, it does.

13 Q. And if you'd just kind of scan down the page,
14 for instance the second entry, the person writes:
15 "Item 5 was fired in Item 1 firearm."

16 That's typically the way conclusions are
17 expressed in your field, correct?

18 A. Yes.

19 Q. But you're saying -- at least I understand you
20 to be saying -- that that's not a correct way to
21 express it. Would that be fair?

22 A. I think there's a better way to express it. I
23 wouldn't say that this is not correct, but it does
24 imply a stronger statement than I think is justified.

25 Q. Okay. Now, you are not yourself a

1 statistician, correct?

2 A. Correct.

3 Q. I think in other testimony you've said that you
4 took a statistics course during your academic
5 training. But other than that, all your statistical
6 knowledge is practical in nature?

7 A. Right.

8 Q. Okay. Are you familiar with the concept of
9 confidence intervals?

10 A. Yes.

11 Q. And tell the Court what that means in the
12 context we're talking about here.

13 A. Well, it's a statistical way to indicate how
14 correct you are. So if you're in a 95 percent or a
15 98 percent, a -- if you are in a 95 percent you're a
16 little less confident than you are if you are in a
17 98 percent level. So it's kind of a plus or minus
18 value of how likely you are to be correct.

19 Q. And in order to express confidence levels, you
20 have to have the statistical or reliability studies
21 to be able to tell what the confidence level is,
22 correct?

23 A. Yes.

24 Q. You don't have that in your field, do you?

25 A. Our field is not -- our comparisons are not

1 based on mathematical -- on mathematical probability.

2 They are not.

3 Q. Okay. Now as I kind of scan down these
4 conclusions, they all look pretty much the same, the
5 Item 1 was fired. But there's one on page 41, the
6 third-to-the-last way of expressing it, it's Web Code
7 Number WNDUL -- DULN. Do you see that?

8 A. It's highlighted, I think, on mine.

9 Q. Okay. What it says is: "Findings suggested
10 that Item 2 and Item 3 were fired with the same
11 firearm. The findings are viewed under two
12 hypotheses, namely H3, the Cartridge Cases 2 and 3
13 were fired with the same firearm.

14 "H4, the Cartridge Cases 2 and 3 were fired
15 with two different firearms of the same caliber and
16 with the same class characteristics. The results
17 would be expressed as follows:

18 "The findings are far more probable under
19 H3 than under H4."

20 Is that a different way of expressing the
21 conclusions than most people use in the field?

22 A. This actually sounds like a European way to
23 express a conclusion. Their range of conclusions is
24 much, much larger than ours.

25 Q. And are they using what's called likely ratios?

1 Is that what this is, if you know?

2 A. It may be, but I don't know. And I know that
3 some overseas -- especially in England -- use
4 likelihood ratios.

5 But I don't think their range of
6 conclusion, their complete range of conclusions, is
7 based on likelihood ratios. But I know they have
8 more -- more categories or levels of association than
9 we do here.

10 And I know that -- I have read a number of
11 these summary reports over the years. And since
12 these go all over the world, sometimes you can tell
13 that the English studies used is probably not written
14 by an English-speaking person and/or some of the
15 methodology. I don't remember reading this one,
16 but -- but it's not the usual kind of conclusion.

17 Q. How, based on your knowledge, do you think a
18 conclusion should be stated so as not to mislead the
19 jury about the weight of the opinion?

20 A. I think it should be stated in the way that --
21 there was an article from Canada that just appeared
22 in the latest AFTE Journal. And as a result of
23 considering a number of things they have decided
24 to -- to actually modify their conclusions. Their
25 conclusion used to be like the one -- like the second

1 one that you pointed out, I think on page 9, "A was
2 fired in this gun."

3 Q. Right. Like in this case, right? That's the
4 way it's phrased here?

5 A. Yes. And they felt that upon -- upon
6 reflection -- and they have a long history of their
7 authors starting out in 1929, actually, with
8 Derome -- I think that is large D, small E-R-O-M-E --
9 who wrote a treatise on firearm examination in 1929
10 in Montreal. And in it, he said conclusions are made
11 to the practical and not the absolute. That's the
12 first ref- -- the earliest reference that I could
13 find.

14 They cite that reference. And they are
15 modifying their report writing now to include some
16 statement to the effect that their associations are
17 made to the practical and not the absolute
18 identification or the absolute exclusion of other
19 tools or guns.

20 Q. Now, you are aware that some Courts have said,
21 at least according to your chapter, the Chapter 35
22 that we talked about, some Courts have said, "Well,
23 instead of using the way they normally phrase it,
24 we'll settle for reasonable degree of ballistic
25 certainty."

1 You've heard that phrase, right?

2 A. I have.

3 Q. What does that mean?

4 A. I have no idea. And I don't think anybody else
5 does either.

6 Q. No jury could decipher what that means, right?

7 A. No. That's correct.

8 Q. Okay. And the Chapter 35 actually critiques
9 that standard, does it not, at least in the 2012
10 version. Not in the earlier ones.

11 A. The one I wasn't aware of.

12 Q. Right. The one you didn't know about. And I
13 apologize for that.

14 A. That's okay. I had to find out somehow.

15 Q. Yeah. If you look at page 674 of your chapter
16 there, the Court is discussing a -- or whoever wrote
17 this portion of the chapter -- is discussing a case
18 out of Massachusetts where the Court precluded the
19 expert from testifying to a match unless they
20 qualified it by saying to a reasonable degree of
21 ballistics certainty.

22 And at the top of page 674 it says: "We
23 have intimated elsewhere in this chapter the
24 problematic and unhelpful nature of this phraseology.
25 In the absence of error rates and a validated

1 methodology for assessing the frequency of any given
2 quantum of matching striations, what is a reasonable
3 degree of ballistics certainty?

4 "The Court appears to believe that the
5 phrasing helps a jury to recognize that there is no
6 firm statistical basis for a firearm expert's
7 conclusions and that subjective -- subjectivity is
8 involved in the assessment.

9 "But whether a jury would actually hear or
10 recognize these other points as a consequence of this
11 phrasing is far from clear. And given that firearm
12 experts themselves believe that they are capable of
13 making identifications so certain that the chance of
14 any other weapon as the firearm would be a, quote,
15 practical impossibility, it is very difficult to
16 parse what a reasonable degree of ballistics
17 certainty even means."

18 And you agree with that, right, what they
19 wrote there?

20 A. I do.

21 Q. Okay.

22 A. And by the way, we -- we really don't know who
23 wrote this.

24 Q. Right. But whoever wrote it you agree with?

25 A. Yes.

1 Q. All right. And then the author says: "If
2 practitioners believe in good faith that they are
3 capable of an extremely high degree of certainty, but
4 this belief is not necessarily reasonable, and
5 certainly is not grounded in scientific studies, what
6 can it possibly mean to have a reasonable degree of
7 ballistic certainty?

8 "While one can sympathize with the Court's
9 desire to continue to permit a form of evidence long
10 used and that clearly does provide some useful
11 information, to act as if the significant weaknesses
12 is in the empirical and scientific foundation
13 underlying the field can be cured by the use of
14 nearly incomprehensible fudge phrases like this one
15 is unfortunate."

16 You would agree with that, too, right?

17 A. Well, there's a portion of this that I heartily
18 disagree with.

19 Q. That's about the significant weaknesses in the
20 empirical and scientific foundation?

21 A. Well, that, and when the author says that --
22 that our belief in identifications to a high degree
23 of certainty is not necessarily reasonable and is not
24 well-grounded, it's my opinion they are reasonable
25 and our opinions are well-grounded.

1 Q. Okay. Other than that, you would agree with
2 that?

3 A. Yes.

4 Q. Okay. Now, I guess the follow-up question is:
5 What is the difference between using a phrase like
6 "practical impossibility" and using a phrase like "a
7 reasonable degree of ballistics certainty"? How is
8 the latter -- how is the practical impossibility not
9 subject to the same criticism?

10 A. Well, practical is a -- in my opinion,
11 "practical impossibility" means that although our
12 identifications are not based on mathematical
13 estimates of probability, they are based on
14 longstanding series of empirical testing and
15 validation testing.

16 They're based on the person's training and
17 experience.

18 They're based on, in large extent, to a
19 large amount of peer review.

20 And in my opinion, the sum -- sum total of
21 that is sufficient to allow us to make strong
22 associative evidence statements.

23 Q. And when you convey to a jury "it's practically
24 impossible that I'm wrong here," aren't you, in fact,
25 conveying that you are certain?

1 Is there really any linguistic difference
2 between those two phrasings, "absolute certainty,"
3 and "it's practically impossible that I'm wrong"?

4 A. I think there is a difference.

5 Q. What is it?

6 A. I just explained what it is. Would you like me
7 to repeat it?

8 Q. No. If you think you've explained it and you
9 are willing to stand by that, that's fine.

10 And does that statement, "a practical
11 impossibility," take into account errors associated
12 with things like mischaracterizing subclass features
13 as individual features?

14 A. In my opinion, the statement of practical
15 impossibility should -- and should really only be
16 made when the casework has been done in such a
17 thorough way that all the documentation clearly
18 supports the conclusions that are reached. And that
19 includes an evaluation for subclass influence. It
20 includes extensive notes. It includes extensive
21 photomicrographs. In my opinion, scientific
22 recordkeeping requires nothing less.

23 So if the work has been done that way, then
24 I think people like me are justified in coming to
25 court and making those strong associative evidence

1 statements.

2 Q. And that is based in large part on your view
3 that the validity work has been done?

4 A. Yes.

5 Q. Including the validity work on QCMS and the
6 subjective method?

7 A. Well, a lot of it has been done. And in the
8 interest of science, science marches on. And so like
9 I've already testified to yesterday, I'm very
10 encouraged by the -- by the 3D type of machine
11 analysis that analyzes the topography of toolmarks.
12 And they actually create numbers. They create data
13 which results in these graphs of topography, and they
14 actually are creating numbers.

15 And they have shown clearly that there's a
16 difference, a quantifiable difference, between known
17 matches and known non-matching toolmarks, which
18 really supports and underscores the validity of what
19 we have been doing as a result of training,
20 experience, and the studies that we have mentioned.

21 We have been doing this for many years, so
22 it's encouraging to see that these new types of
23 analytical methods actually support what we have been
24 doing.

25 Q. You say it's encouraging. And I assume you

1 mean to imply by that that we are not yet at the
2 stage where whatever is being done with these new
3 technologies can produce the kind of numbers that
4 will give us a statistical basis for telling the jury
5 that there is any level of certainty to what you are
6 doing here?

7 A. That's right.

8 Q. Okay. Now back to the Bunch article.

9 THE COURT: Before you proceed, let me just
10 clarify.

11 MR. BURT: Sure.

12 THE COURT: The last group of questions, if
13 I understood correctly, came from Exhibit H?

14 MR. BURT: Yes, Your Honor. Exhibit H is
15 the 2012 edition of the "Modern Scientific Evidence."

16 THE COURT: Okay. And I don't have that
17 exhibit in front of me, so I want to make sure I get
18 that before we conclude our proceedings.

19 MR. BURT: Yes. I can -- we can provide
20 the Court with a copy of that.

21 THE COURT: And the passages that you read
22 from, were those from the legal issue section?

23 MR. BURT: They were, yes.

24 THE COURT: Okay. Thank you. You may
25 proceed.

1 MR. BURT: Thank you.

2 BY MR. BURT:

3 Q. Back to the Bunch article.

4 A. Yes, sir.

5 Q. The second page.

6 A. This is Exhibit O?

7 Q. Right. And under the heading "Bayesian
8 analysis of forensic science in the courtroom," do
9 you see that section?

10 A. I do, yes.

11 Q. The first sentence says: "At this point it
12 must be observed that there is no rational or
13 scientific ground for making claims of absolute
14 certainty in any of the traditional identification
15 sciences which include fingerprint, document,
16 firearms toolmarks, and shoe and tire tread
17 analysis."

18 You agree with that statement, right?

19 A. Yes.

20 Q. The next paragraph he says: "Consequently,
21 statements asserting identity often include the
22 following: With a reasonable degree of scientific
23 certainty, practical certainty, moral certainty,
24 beyond any credible doubt, a practical impossibility
25 of dissimilar origin.

1 "So long as traditional subjective forensic
2 examinations are conducted, this kind of concluding
3 terminology is acceptable."

4 You disagree with that statement, right,
5 for the reasons we have already discussed?

6 A. I'm a little behind you. I'd like to read it.

7 When you said the next sentence, you
8 actually meant the next paragraph. So...

9 Q. I thought I said the next paragraph. If I
10 didn't, I apologize.

11 A. I'm sorry I lost you.

12 Q. I apologize.

13 A. Okay. Thank you, Counselor.

14 (Witness reviewing documents.)

15 I agree with what he said.

16 Q. You agree with what he says when he says:
17 "It's acceptable to state with a reasonable degree of
18 scientific certainty"?

19 A. Well, he also has "practical certainty" in
20 there, so I agree with that.

21 Q. You agree with the practical certainty, but how
22 about the other ones?

23 A. Well, I wouldn't -- I think it's better
24 expressed as practical certainty.

25 Q. So not moral certainty?

1 A. I don't think so, no.

2 Q. Whatever that means.

3 A. Yes.

4 Q. With "a reasonable degree of scientific
5 certainty," you don't think that's an acceptable way,
6 correct?

7 A. I personally don't care for it.

8 Q. Okay. "Beyond any credible doubt," you don't
9 subscribe to that view, right?

10 A. That's right.

11 Q. Meaningless, correct?

12 A. (No verbal response.)

13 Q. But you do like a "practical impossibility of
14 dissimilar origin"?

15 A. Yes, I would use that.

16 Q. Okay. And that, again, is based on your
17 assumption that the empirical work has been done,
18 correct?

19 A. Yes.

20 Q. Now, he says -- he is describing your CMS
21 decision criteria on the next page, 957, right?

22 A. Yes. In the right-hand column?

23 Q. Yes. And he says: "Biassoti was the first in
24 print to suggest the possibility of counting
25 consecutive matching striations on bullets for use as

1 a criterion for identifying a particular firearm as
2 having fired a particular bullet."

3 And then he cites to Biassoti's 1959
4 article, right?

5 A. Yes.

6 Q. And then he says: "Further empirical work was
7 undertaken at the California Criminalists Institute,
8 although this body of research remains largely
9 unpublished. And recently, technical articles have
10 appeared that invoke the CMS count approach."

11 Right?

12 A. Yes.

13 Q. And there, he's referring to your work and the
14 work of Bruce Moran at the California Criminalist
15 Institute, right?

16 A. Yes. And the work of Al Biassoti at that
17 institute.

18 Q. And he's correct when he says, "this body of
19 research remains largely unpublished"?

20 A. Yes.

21 Q. He never published that, right?

22 A. It's been summarized, but it's never been
23 published in detail.

24 Q. Okay. And then he says on page 958, after some
25 discussion which is incomprehensible to me, but -- on

1 likelihood ratios -- he says: "Concerning the
2 technical substance of the Biassoti-style CMS
3 counting regime, doubtless it offers numerous
4 theoretical and practical benefits.

5 "It is inherently more scientific than the
6 subjective regime currently used by the vast majority
7 of examiners; and thus, perhaps more likely to
8 successfully pass as a scientific theory or technique
9 in a Daubert hearing.

10 "In regards to the testability and error
11 rate guideline stemming from this ruling, certainly
12 the CMS regime is testable, and with far more
13 research could be deeply tested."

14 Do you agree with that statement?

15 A. Yes.

16 Q. Does that imply to you that it has not been
17 deeply tested?

18 A. No.

19 Q. It doesn't? Okay.

20 How about the statement on the next page
21 where he says: "A well-researched CMS regime could
22 result in greater confidence being placed in examiner
23 conclusions, inasmuch as it largely would rest on the
24 validity of published research rather than on
25 examiner appeals in court to the trustworthiness of

1 subjective results, or on appeals to the results of
2 relatively few proficiency tests."

3 Do you agree with that?

4 A. I'd like to read that again.

5 Q. Sure. Go ahead.

6 A. (Witness reviewing documents.)

7 I would agree that this was accurate when
8 he published it.

9 Q. It's not accurate anymore?

10 A. Well, there's been a lot of work done since
11 then. This was published a little over 12 years ago.
12 I believe this was published in 2000.

13 Q. He says -- he then points to a number of
14 practical difficulties with your QCMS approach,
15 right?

16 A. Yes, he does.

17 Q. It says that it oversimplifies reality, right?

18 A. He says that.

19 Q. He says there is subjectivity in counting
20 striations?

21 A. I would agree with that.

22 Q. In other words, different examiners could count
23 four striations. Somebody else comes in and says,
24 "No, I think there's three."

25 A. There could. That's right.

1 Q. That happens, right?

2 A. It could, yes.

3 Q. And he says: "The more serious problem,
4 obtaining a truly valid and usable CMS regime would
5 necessitate" --

6 A. Excuse me. Where are you? I'm sorry.

7 Q. I'm sorry. 959, last paragraph.

8 A. The last paragraph. Thank you.

9 Q. "A more serious problem. Obtaining a truly
10 valid and usable CMS regime would necessitate a
11 large-scale research program involving numerous
12 varieties of bullets and barrels, tens of thousands
13 of test firings, and possibly careful mathematical
14 curve fitting.

15 "The need to utilize multiple runs of CMS
16 only complicates matters, but without this kind of
17 analysis much information is lost. Indeed, the
18 firearm toolmark community would commit a long-term
19 mistake by underestimating the scope of the research
20 required to truly validate a CMS regime."

21 Isn't he stating there that this regime has
22 not been validated up to this point?

23 A. He is -- he is intimating that. In -- as a
24 result of his writings in 2008, however, he has
25 changed his mind.

1 Q. Okay. And where, in your citations, has he
2 changed his mind? Do you have that cited in your
3 literature there?

4 A. I don't believe -- in which literature? Are
5 they in the materials that have been introduced here?

6 Q. Right. Your 94-page summary.

7 A. I don't believe his -- the statement that he
8 made is in that 94-page summary.

9 Q. So let me get this straight. You submitted an
10 article to the presidential subcommittee which says
11 that there is no empirical basis -- or an
12 insufficient empirical basis for the QCMS method.
13 And you're representing to the Court that this person
14 has changed his mind, but you didn't submit that
15 change of mind to the presidential committee, even
16 though your purpose was to show the validity of the
17 science?

18 A. There are other articles regarding -- a number
19 of other articles that you haven't mentioned --
20 regarding the use of QCMS that, in my opinion,
21 supports -- adequately supports the use of it.

22 Q. So the answer to my question is, no, you did
23 not submit information to the presidential committee
24 about this FB- -- he was the head of the unit when he
25 wrote this, right?

1 A. He was.

2 Q. So that would seem fairly important, would it
3 not, that the head of the FBI unit is saying that
4 your claims of validation are not substantiated, and
5 you submit this article to them, but you don't tell
6 them that he has changed his mind?

7 A. I didn't feel that it was necessary to submit
8 that article, in light of the other research that had
9 been done since this article was published.

10 Q. And where in -- in a document -- has he
11 expressed that he's changed his mind?

12 A. I have it, if you'd like for me to search for
13 it. I could do that.

14 Q. Sure. That would be great, if you would.

15 A. I found the document.

16 Q. Okay. Can I have a chance to look at it so I
17 could ask you some questions?

18 A. I believe it's dated on the last page.

19 Q. Actually, this is unsigned.

20 A. It is unsigned.

21 Q. Okay. So this is not a signed affidavit by
22 Mr. Bunch, is it? Unsigned and undated?

23 A. No, it's dated.

24 Q. Where is it dated?

25 A. It has the line signed -- rather, "Signed and

1 sealed this 29th day of May 2008."

2 And it's not filled in, but it says -- this
3 is a notary statement, I think.

4 It says: "Before me the undersigned, a
5 notary public for -- for blank county, state of
6 Virginia, personally appeared Stephen G. Bunch. And
7 he being first duly sworn by me upon his oath says
8 that the statements contained in the above affidavit
9 are true.

10 "Signed and sealed this 29th day of May
11 2008. My commission expires on" so-and-so.

12 It is not signed. However, the statements
13 he makes in here discussing the quantitative CMS are
14 the same ones that he has made to me in person during
15 discussions.

16 Q. Okay. So your opinion that he's changed his
17 mind is based on a -- and by the way, if I could,
18 would you mind if I mark this? Do you have another
19 copy of this?

20 A. I do not. I'd like you to make a copy of that
21 to mark. That's my only copy.

22 Q. I'll mark it for now, and then we can copy it.

23 A. Well, I would rather it not be marked. If you
24 would copy it and mark the copy, that would be the
25 best of both worlds.

1 MR. BURT: Okay. We will do that. But for
2 now, I want to --

3 THE COURT: Why don't we go ahead and make
4 a copy? We can do that fairly quickly.

5 MS. MOTT: Your Honor, if I could ask for
6 another copy? Thank you.

7 BY MR. BURT:

8 Q. While we're doing that, at least in his
9 published account of this -- this is at page 961.
10 He's got a section called "Research to Date," right?

11 A. Yes.

12 Q. And he says in the first paragraph there: "But
13 what about the CMS research that already has been
14 conducted? Is it useful? An honest answer is that
15 it is only marginally so."

16 Do you agree with that?

17 A. No, I don't.

18 Q. Okay.

19 Do you agree with this statement at the end
20 of that paragraph: "So far there has been a paucity
21 of published empirical validity research since
22 Biassoti's 1959 article; and thus, for a case with
23 differing circumstances, drawing conclusions from the
24 limited existing data is unjustified."

25 A. Well, it was certainly his opinion in 2000.

1 And there was not a lot of empirical research that
2 was published up to that point.

3 But we offered it up to the community in
4 1997. And after this article was published there
5 was -- there was a lot of research done and a lot of
6 publication done on it.

7 Q. So is this a good example of why one could not
8 rely on your 94-page summary, that you actually have
9 to go to the articles?

10 A. In what way are you suggesting that a person
11 could not rely on our 94-page summary?

12 Q. Well, you represent that summary as being
13 supportive of your opinion that the field was
14 validated and reliable.

15 And you said there's lots of research out
16 there supporting that statement, and you cited both
17 to this Court and to the presidential committee this
18 Bunch article.

19 And yet, if you go to the Bunch article it
20 says: "So far there has been a paucity of published
21 empirical validity research since Biassoti's 1959
22 article; and thus, for a case with differing
23 circumstances, drawing conclusions from the limited
24 existing data is unjustified."

25 That's not in your summary, right?

1 And that certainly does not, on its face,
2 appear to support your conclusion that these studies
3 you cite show validity. In fact, just the opposite.

4 Isn't that true?

5 A. The 94-page compilation of articles was written
6 in direct response to 25 questions posed by that
7 internal working group. And we felt that it was
8 appropriate to include Steve Bunch's article under
9 the question that it appears.

10 Q. Okay. And is what you just said meant to imply
11 that you realized that it contradicts the assertion
12 of validity that you have made here, but you included
13 the article so that they could see it?

14 A. Yes.

15 Q. Okay. Now, another article that you cite in
16 your 94-page summary is --

17 MR. BURT: Well, I think before I go on
18 I'll give you back your original.

19 I'll mark this as Q.

20 And we're short one copy to the Court.

21 THE COURT: There's one here.

22 MR. BURT: What I would like to do is
23 direct the Court to the second-to-the-last and the
24 last page.

25

1 BY MR. BURT:

2 Q. The second-to-the-last page shows a blank
3 signature line, correct?

4 There's a place, "State of Virginia, County
5 of, SS," where a notary would sign.

6 But that's not signed by a notary, is it?

7 A. That's correct. It is not.

8 Q. And the signature line is blank, right?

9 A. Yes. That's correct.

10 Q. And then the next page is a notary form.
11 That's also blank?

12 A. It is.

13 Q. And it says, "My commission expires."

14 That's also blank as well?

15 A. Yes.

16 Q. So this document does not indicate that anybody
17 signed this or that anybody notarized this, right?

18 A. And I didn't -- when I mentioned it, I didn't
19 suggest that it did.

20 Q. Okay. Now on page 8.

21 A. Which document?

22 Q. Of the 94-page summary. I'm back to Exhibit 9.

23 You cite an article by Bonfanti and
24 De Kinder, correct?

25 A. Yes. But I'm looking for that document right

1 now.

2 Q. Okay.

3 A. Did you say page 9?

4 Q. I said page 8. I'm sorry.

5 A. Page 8.

6 Yes, we do cite them.

7 Q. And what does your summary state, in terms of
8 what you claim that that article says?

9 A. It simply describes it as a compendium of 50
10 references that describe the examination of
11 consecutively or nearly consecutively manufactured
12 firearms components.

13 Q. Okay. And I'm showing you Exhibit R, which
14 I've had marked.

15 Is that the article, the actual article?

16 A. Yes.

17 Q. In the very first paragraph they state the
18 basic hypothesis of your field, correct?

19 A. They do state a hypothesis, yes.

20 Q. He says: "A basic hypothesis of firearm
21 identification is the uniqueness of the striations
22 and marks left on fired bullets and cartridge cases,
23 respectively. This paper reviews the studies so far
24 reported in the literature on this issue applied to
25 consecutively or closely manufactured components of a

1 firearm.

2 "A correct firearm identification starting
3 from the striae on a bullet can be performed if one
4 takes into account a few basic rules which are
5 independent of the specific rifling technique applied
6 to the barrel. However, the identification starting
7 from a cartridge case has to be performed with care,
8 exploiting as much as possible all the marks left
9 during the firing process."

10 They state that, right?

11 A. They do.

12 Q. And then he reviews the literature, correct?

13 A. Yes.

14 Q. And on page 2 he says: "As the techniques of
15 firearm manufacture have evolved, following
16 mostly" --

17 MS. MOTT: I'm sorry. Could you tell me
18 where you at, please?

19 MR. BURT: It's the second page, which is
20 page 4. The second page of the article, but four on
21 the published page, the second paragraph.

22 BY MR. BURT:

23 Q. "As techniques of firearm manufacture have
24 evolved, following mostly commercial rather than
25 forensic arguments, this hypothesis needs to be

1 verified on a regular basis.

2 "Currently, some doubts have been cast on
3 the uniqueness of the manufacturing marks based on
4 the lack of characteristic traces left on the bullets
5 and cartridge cases and the noted similarity among
6 consecutively manufactured firearm parts, which may
7 be due to their mass produced -- mass production,
8 produced with a single tool made of very hard
9 material."

10 And then he cites a number of studies,
11 right?

12 A. Yes.

13 Q. Do you agree with that point he's making?

14 A. Yes.

15 Q. And what does he mean, if you know, when he
16 says: "Techniques of firearm manufacture have
17 evolved following mostly commercial rather than
18 forensic arguments"?

19 A. I don't know what he really means by that
20 sentence.

21 Q. Does he mean that the manufacturing process is
22 intended to produce firearms quickly and cheaply to
23 sell at a high price, and that that consideration is
24 separate and apart for what high-level manufacturing
25 would do to the forensic usability of a weapon?

1 A. Well, I really don't know what he means, but I
2 certainly don't get what you just said from it.

3 Q. Well, what does he mean when he says:
4 "Currently, some doubts have been cast on the
5 uniqueness of the manufacturing marks based on the
6 lack of characteristic traces," and then he's saying,
7 "which may be due to their mass production."

8 A. I think that he's talking about -- without
9 looking at these references, which would -- could
10 certainly give us a clue as to what he is talking
11 about -- I think he's talking about subclass
12 influence.

13 Q. Subclass influence?

14 A. Yes.

15 Q. Okay. So mass production produces subclass
16 influences?

17 A. Well, most -- most all production is mass
18 production unless you get a one-person shop who
19 produces one item at a time.

20 You would really have to define what "mass
21 production" is, but I would define it as producing
22 any number of items.

23 And when you produce items consecutively
24 like that, as we've talked about most of yesterday,
25 you can get carryover of marks.

1 Q. Now, these consecutively manufactured studies
2 that you cite in your summary are all based on the
3 assumption that if you found consecutively
4 manufactured barrels, for instance, that produce
5 similarities, that that could cause some problems in
6 terms of your basic theory of identification.

7 A. Yes.

8 Q. Right?

9 A. Subclass, as we have -- as I have said a number
10 of times, has to be eliminated.

11 Q. And what he's doing here is citing a number of
12 studies in which he said support the proposition that
13 there was noted similarity among consecutively
14 manufactured firearm parts.

15 A. Where did you read that from? I'm sorry.

16 Q. "Currently, some doubts have been cast on the
17 uniqueness of the manufacturing marks, based on the
18 lack of characteristic traces left on the bullets and
19 cartridge cases and the noted similarity among
20 consecutively manufactured firearm parts."

21 A. Yes.

22 Q. And he's saying that these studies he's citing
23 found noted similarities among consecutively
24 manufactured firearm parts?

25 A. The ones that he has cited.

1 And then he goes on to say that these
2 recent studies motivated authors to analyze the
3 number of studies in the literature dealing with the
4 identification of bullets and cartridge cases fired
5 by consecutively manufactured firearms or parts of
6 firearms which resemble each other.

7 And so he's -- he's tried to include -- and
8 he has done a very nice job, actually, the authors
9 have in this. By -- by summarizing this, he's saved
10 people a lot of time and effort bringing everything
11 together.

12 And then he -- he does refer -- I think
13 it's important to refer people back to the original
14 article.

15 Q. Uh-huh. He -- on the next page under table --

16 A. Excuse me. Can we go back, however, to the
17 references that immediately follow the citation that
18 you read?

19 The references are 2, 3, 9, 13, and 14.

20 Q. Precede or following?

21 A. They follow.

22 Q. Okay.

23 A. The Reference 3 happens to have been authored
24 by me --

25 Q. Okay.

1 A. -- in 1981. And if you look at page -- page 5,
2 although it's not -- yes, it's numbered in the lower
3 right-hand corner.

4 Reference 3 is by Murdock: "A general
5 discussion of gun barrel individuality and an
6 empirical assessment of the individuality of
7 consecutively button-rifled .22 caliber rifle
8 barrels."

9 The end result of that research that I did
10 shows that there was no carryover of subclass
11 characteristics due to -- in these consecutive
12 button-rifled barrels that I got.

13 So that reference -- and now I believe that
14 you said that those references support the notion
15 that there is carryover.

16 Q. I said that or he said that?

17 A. I think you said that.

18 Q. Well, isn't that -- traditionally, when an
19 author of an article cites to various articles in
20 support of a statement, what is that designed to do?

21 A. It is designed to lend support to that
22 statement.

23 Q. Right. That's all I was saying.

24 A. But my point is that my article does not lend
25 support to that statement --

1 Q. So this --

2 A. -- and yet it is cited here.

3 Q. So this article misstates the findings of

4 your -- your study?

5 A. No, it doesn't misstate it. But he -- why he

6 referenced it right here, I don't know. But if the

7 statement is meant to imply that there is increasing

8 amount of subclass carryover, the work that I did and

9 reported on in 1981 certainly doesn't support that

10 notion.

11 Q. Did you find noted similarity among

12 consecutively manufactured -- barrels, in your case,

13 was it?

14 A. No.

15 Q. You didn't?

16 A. I was able to distinguish all of those barrels

17 from one another.

18 Q. I think that's a different answer.

19 Did you find noted similarities among

20 consecutively manufactured parts that you were

21 examining?

22 A. No.

23 Q. All right. So he has mis-cited you here?

24 A. That's possible.

25 Q. Is he mis-citing the other studies?

1 A. I don't know.

2 Q. Did you know that he was mis-citing you, when
3 you cited this to the Court and to the presidential
4 committee?

5 A. No. In his opinion, he might not have
6 mis-cited this. I really don't know why my article
7 appears there, other than I think it's appropriate
8 because it was a study of consecutively manufactured
9 tools. So from that standpoint, I'm glad that it's
10 there.

11 Q. Okay.

12 A. In fact, if you go over to page 7, he has a --
13 a summary of my article.

14 So on the far right-hand column, the
15 results of my article: "He reports no carryover of
16 family-type striations on bullets can be seen on the
17 groove and land impressions. However, some striae
18 were found to agree. This is not sufficient to
19 hamper a correct identification of the weapon."

20 Q. So you did find some striae that agreed, even
21 though they were fired from different barrels?

22 A. You can always -- as I've already testified to
23 yesterday, in known non-matching toolmarks, it's not
24 at all unusual to find some matching agreement just
25 at random.

1 Q. By the way, in that 1981 study, you found that
2 when you fired a bullet through the gun the first --
3 the first bullet you fired through, you couldn't get
4 any identification marks on it, correct?

5 A. That's right. I'm impressed that you -- you
6 remember that.

7 Q. And how does that comport with your theory that
8 a bullet is impacted by the tooling in the barrel
9 when it goes through?

10 In other words, the theory under which you
11 operate -- one of the theories is that the bullet --
12 the barrel imparts unique marks on the -- on the
13 bullet, correct?

14 A. Yes.

15 Q. That's the basic theory?

16 A. One of them.

17 Q. Yet in your study you took a bullet, you put it
18 in the gun, you fired it, you took the bullet out,
19 you looked at it, no individual markings.

20 Then you fired another bullet, no
21 individual markings.

22 And then you fired a third one, oh, you got
23 an individual mark. What explains that?

24 A. It's well-known in my field, a phenomenon
25 called seasoning, which means that -- these,

1 incidentally, are brand-new barrels from the
2 manufacturer.

3 Q. Uh-huh.

4 A. I was the first one to fire through them.

5 And it is not unusual that -- that a barrel
6 has to be -- has to be broken in slightly before it
7 can -- before it settles into a reproducible amount
8 of striae on the land and groove impressions. So I
9 was not a bit surprised.

10 Other research have found very similar
11 results when they have acquired new barrels. They
12 begin to fire through them, and most of the time most
13 researchers will fire 5, 10 or 15 shots through in
14 order to cause the barrel to settle in and the
15 newness to be ironed out, so to speak.

16 Q. So one thing you found was that it isn't true
17 that every time you fire a bullet through a gun it
18 imparts characteristics as a result of their --

19 A. No, that -- that statement is certainly true.
20 Characteristics are imparted every time you fire a
21 bullet through a barrel. Whether or not they're
22 reproducible, that's something else again.

23 Q. Okay. So in your study, from Bullet 1 to
24 Bullet 3, the same marks were not reproducible?

25 A. Correct.

1 Q. And in fact, in firing 4 and 5, you got
2 somewhat different markings on Bullet 4 than you got
3 on Bullet 5, right?

4 A. I don't remember exactly, but -- but that's
5 likely.

6 Q. Because no matter how many times you fire a
7 bullet through a gun, you never are going to get the
8 exact same characteristics on the bullet from bullet
9 to bullet, correct?

10 A. Not exactly the same. That's correct.

11 Q. And in fact, one of the articles that the
12 government cites in its -- in its submissions,
13 Exhibit 22, "The effects of fire damage on the
14 ability to make identifications, part two."

15 Are you familiar with that study?

16 A. I think that was done by a couple of ATF
17 examiners?

18 Q. Correct.

19 A. I've not -- I haven't read it lately, so I'm
20 not -- I'm not real familiar with it, but I know of
21 its existence.

22 Q. Well, let me summarize for you one aspect of
23 that. We'll talk about that later.

24 But one of the things they found was that
25 the marks on a cartridge case varied, depending upon

1 what kind of ammunition they used.

2 And that's not a surprising conclusion to
3 you, is it?

4 A. That's correct. It's not.

5 Q. That's one of the reasons why, when you are
6 doing these comparisons, you're supposed to use the
7 exact same ammunition?

8 A. As close as you can get, yes.

9 Q. Because the marks can vary, depending upon make
10 and model of the ammunition?

11 A. Yes.

12 Q. Why is that?

13 A. Because -- because of the degree of hardnesses,
14 mainly.

15 Q. So in your field, it's not like fingerprints,
16 where they claim that a fingerprint is permanent
17 throughout one's life. You don't have that
18 principle, do you?

19 A. No.

20 Q. And in the fingerprint field, they also have
21 something called the one dissimilarity rule.

22 Do you know what that means?

23 A. I do.

24 Q. Which is that if -- no matter how many points
25 of identity match, if there's one point of

1 unexplained dissimilarity, you have to say that
2 there's no match, right?

3 A. That's what they say.

4 Q. You don't have any principle like that in your
5 field?

6 A. No, we don't.

7 Q. And the reason you don't is because the
8 markings are not reproducible from firing the
9 firearm.

10 A. Well, they can certainly be reproducible and
11 sufficient for identification purposes. But like you
12 have pointed out correctly, they won't be identical.
13 If they are identical, something is wrong.

14 Q. Okay. Now he also summarizes the literature of
15 cartridge case identifications, does he not?

16 A. What page are you on?

17 Q. This is on the last page -- the last before the
18 references. So the page that the references begin
19 on.

20 A. Yes. That's Table 3.

21 Q. Right. He says: "Table 3 analyzes various
22 studies performed on a broad variety of different
23 calibers, types, and makes of firearms.

24 "The object of these studies was either the
25 component of the firearm which left the toolmark, a

1 casting of this, or its imprint on the cartridge."

2 So here he's talking about cartridge cases,
3 right?

4 A. I actually went to Table 3. I thought that's
5 where you were, back on page 9. But you're in the
6 text part of --

7 Q. Yeah. I'm in the text part, where he says --

8 A. On page 4?

9 Q. Page 5.

10 THE COURT: Why don't we come back to this
11 after our break.

12 MR. BURT: Sure.

13 THE COURT: We will go ahead and take our
14 break at this time.

15 We will be in recess for 15 minutes.

16 (A recess was taken from 10:25 a.m. to
17 10:51 a.m.)

18 THE COURT: Please be seated.

19 We're back on the record. I apologize the
20 break went a little longer than I expected. I had
21 some other matters that I had to attend to.

22 BY MR. BURT:

23 Q. Okay. Do you have the -- we were talking about
24 this Bonfanti article?

25 A. We were.

1 Q. What's the exhibit letter?

2 A. It looks like R.

3 Q. R. Okay. Good. Okay.

4 And we were talking about his summary of
5 the studies on page 5, where he says: "Table 3
6 analyzes various studies performed on a broad variety
7 of different calibers, types, makes of firearms.

8 "The object of the studies was either the
9 component of the firearm which left the toolmark, a
10 casting of this component, or its imprint on the
11 cartridge.

12 "Depending on the firearm that was used,
13 different results were obtained. In a number of
14 cases a correct identification was difficult to
15 perform."

16 And then he cites five studies, right?

17 A. Yes.

18 Q. So is that true, that the studies that he cites
19 show that depending upon which firearm was being used
20 you would get different results, and that in a number
21 of cases a correct identification was difficult to
22 perform?

23 A. May I have a moment just to look at these five?

24 Q. Yes. Sure.

25 One of them looks like it's in German, so

1 I'm not sure that's going to help us. So...

2 A. Well, you're right. That one doesn't help me
3 at all.

4 (Witness reviewing documents.)

5 Yes, that's correct.

6 Q. Okay. Then he says: "It's not clear from
7 Table 3 whether it's possible to isolate the problem
8 cases. One might expect to do so on the basis of the
9 production process. Among the simplest fabrication
10 processes are the breech faces of the Lorcin L9
11 pistols, applying a stamping technique, and the
12 firing pins of the Smith & Wesson revolvers
13 manufactured by a single tool.

14 "In these cases a correct identification of
15 the firearm, on the basis of the breech face and
16 firing pin impression respectively, turned out to be
17 hardly possible.

18 "With more complicated manufacturing
19 processes, such as for the Heckler & Koch USP
20 pistols, similar identification problems were
21 encountered. In the latter case it was impossible to
22 identify the tool which generated the subclass
23 characteristics during the firearm assembly."

24 Could you translate that for us? What's he
25 saying there?

1 A. Well, you read a lot of sentences. Which
2 sentence do you want me to talk about? The last one
3 or...

4 Q. Well, first of all, when he says, one, "it's
5 not possible to isolate the problem cases, one might
6 expect to do so on the basis of the production
7 process," why would one expect to be able to isolate
8 the problem cases based on the production process?

9 A. Well, if you could identify a certain
10 production process that -- that was consistently
11 reproducing subclass characteristics, that would
12 be -- if you could reduce it to that -- to that --
13 that straightforward and simple a process, that would
14 be good.

15 Unfortunately, the manufacturing people
16 change processes just all the time.

17 Q. And that's really a problem in terms of
18 empirically validating your field, right? Because
19 the minute you look at one -- like in your 1981
20 study, you were looking at Marlin rifle barrels,
21 right?

22 A. Well, up to three different brands of barrels.

23 Q. And you were doing that because you said in
24 your 1981 study that -- that the background research
25 responsible for the concept of individuality was

1 conducted at a time when the rifling of gun barrels
2 was accomplished through the physical removal of
3 metal by cutters or scrapers.

4 A. Yes, I did.

5 Q. So what you were doing in '81 is you were
6 saying, okay, the whole concept of individuality was
7 formed at a time when the manufacturing process is
8 much different than it is today?

9 A. Well, they still use some cut rifling processes
10 today. But what -- what changed in the early '80s --
11 late '70s, early '80s, was the introduction of
12 methods of swaging the inside of gun barrels where
13 there was no cutting involved. There's just -- just
14 metal movement in -- in several different ways.

15 And so I reason that the same justification
16 that we used to rely on for the empirical test that
17 dealt with cut rifle barrels, you couldn't transfer
18 that unilaterally over to these barrels because a
19 different metal working process was used.

20 Q. Okay. As you just alluded to, as you do your
21 study, the manufacturers are then changing their
22 manufacturing process, which introduces new
23 variables?

24 A. They can. But there has not been a tremendous
25 change in -- in rifling. So members of my profession

1 try to keep up on -- when we learn of a new
2 manufacturing technique, hopefully we learn about it
3 in a more expeditious way than I learned about the
4 production of a new chapter that I authored.

5 But if we learn about that in an
6 expeditious way, then we can -- we can research that.
7 We can acquire specimens made according to the new
8 technique and we can do -- so -- so authors, since I
9 wrote that in 1981, have done essentially the same
10 thing that I did in '81.

11 Q. With other guns?

12 A. With other gun manufacturing kinds of
13 techniques used for the production of rifling.

14 Q. What you said in your '81 study is that you
15 hope that the results of your research had
16 contributed a little more -- a little more science to
17 the art of firearms identification, right?

18 A. Yes, I did say that.

19 Q. Okay. Implying that there's an artistic aspect
20 to this, and you were trying to contribute a little
21 more science to the process?

22 A. Yeah. And there always has been some artistic
23 aspects of my field.

24 Q. Okay. And so since that was written, other
25 people have done studies on other manufacturing

1 processes as they have changed --

2 A. Yes.

3 Q. -- with the times?

4 A. Yes.

5 Q. And by the way, it's sometimes hard to get that
6 information, isn't it, in terms of how they actually
7 make the weapons. You tried it in your -- your
8 dissertation, sent out letters to the manufacturers,
9 and you got a lot of "it's none of your business"
10 kind of replies, right?

11 A. I did.

12 Q. The reason for that is this is a commercial
13 enterprise on behalf of the firearm manufacturers,
14 right?

15 A. Yes. They consider it to be proprietary
16 information sometimes.

17 Q. And there's often trade secrets involved?

18 A. Yes.

19 Q. They don't want information out in the public
20 about what their manufacturing process is?

21 A. That's true.

22 Q. Because it's hard to study, then, when you
23 can't actually get access to what the manufacturing
24 process is. Because I think you emphasized on your
25 direct examination the absolute need in making

1 identification is to know what the manufacturing
2 process is.

3 A. Yes. It used to be harder than it is, however.
4 It's become easier to get the manufacturing
5 information.

6 Q. Now, I notice in some of the -- we talked a
7 little bit yesterday about some articles on the
8 specific weapon involved in this case, the .40 Smith
9 & Wesson VE.

10 A. Yes, we did.

11 Q. And when we talk about that literature, there's
12 some discussion of how Smith & Wesson got sued by
13 Glock over patent infringement issues.

14 Are you familiar with that?

15 A. No, I don't follow that kind of discourse.

16 Q. Okay. But that introduces another variable,
17 does it not, in the sense that if certain
18 manufacturers are -- are using a process and then
19 another manufacturer infringes on their patent, uses
20 the same process but markets the gun under a
21 different label, you then have a problem in trying to
22 distinguish is it a Glock or a Smith & Wesson,
23 assuming the same manufacturing process?

24 A. The same class characteristics, yes.

25 Q. Yeah. Okay.

1 So when he's talking -- "he" being
2 Bonfanti, in this article about: "Among the simplest
3 fabrication processes are the breech face of the
4 Lorcin L9 pistols supplying a stamping technique," he
5 is looking at, I assume, breech face markings here?

6 A. I think so, yes.

7 Q. And he's stating that that stamping technique
8 is responsible for the -- for subclass
9 characteristics?

10 A. Yes.

11 Q. Okay. So does it depend, then, on each --
12 examination of each individual weapon to figure out
13 if you've got subclass characteristics?

14 A. Yes.

15 Q. And then he says: "In other cases, like for
16 the Smith & Wesson revolvers, the -- they're
17 manufactured by a single tool process. And in these
18 cases, a correct ID of the firearm on the basis of
19 breech face and firing pin impressions turned out to
20 be hardly possible." Right?

21 A. Yes.

22 Q. Now, is he implying there that because of the
23 way that Smith & Wesson manufactures their breech
24 faces with a single tool that it was producing
25 subclass characteristics on both the breech face and

1 the firing pin, and that was making it hard to make
2 identifications?

3 A. Well, it's not clear that he means breech
4 faces. But he certainly says "the firing pins of the
5 Smith & Wesson revolvers manufactured by a single
6 tool."

7 So he certainly makes that inference with
8 regard to firing pins. But the breech face
9 association is with the Lorcin pistols.

10 Q. Oh, I see. So he's saying because of the
11 manufacturing process of the Lorcin, it was producing
12 subclass characteristics on breech face markings and
13 the firing pin impressions; and, therefore, you
14 couldn't make an identification based on those
15 characteristics?

16 A. Well, he -- all he does is subscribe -- he
17 describes the breech faces in connection with
18 Lorcins, and the firing pins in connection with
19 Smith & Wesson.

20 And then he makes a summary statement: "In
21 these cases, a correct identification of the firearm
22 on the basis of the breech face and firing pin
23 impressions respectively turned out to be hardly
24 possible."

25 So he is saying if you just have a breech

1 face impression from a Lorcin pistol it's
2 problematic.

3 And if you have -- if you are working with
4 only a firing pin impression from this particular
5 kind of Smith & Wesson revolver that's problematic.

6 Q. Okay. And then he comes up with a solution to
7 the problem, right? In the last couple of sentences
8 there he says: "A probable solution to this problem
9 lies in a comparison of all the marks present on a
10 cartridge case, breech face impressions, firing pin
11 impressions, ejector mark, extractor mark, and marks
12 generated by dynamic processes. It is less likely
13 that all of these parts are manufactured
14 consecutively and that they all bear subclass
15 characteristics."

16 A. I would agree with that.

17 Q. And you subscribe to that view?

18 A. Yes.

19 Q. And I take that to mean that an identification
20 based solely on any one of those characteristics
21 would be suspect in a situation where you have the
22 potential for subclass characteristics?

23 A. With the last qualifier you added, the answer
24 to your question would be yes.

25 But there -- but it is possible, and it's

1 done -- it's done with clarity, occasionally, to
2 identify individual marks.

3 Q. But not in a situation where you have
4 documented indications of subclass characteristics?

5 A. If in your particular case, either through the
6 examination of the specimen you're working with, the
7 questioned material, and/or the firearm, you can --
8 you can usually determine whether or not you have
9 potential for subclass influence.

10 If you examine a firearm -- if you have it
11 and you're working -- you are limited because of the
12 nature of the evidence to just one particular kind of
13 mark, one of those tools that floated up out of the
14 firearm that I showed during my PowerPoint --

15 Q. Right.

16 A. -- if you just have one of those and you have
17 made the determination in the laboratory that you do
18 not have any subclass influence, you can, with --
19 with certainty -- make -- make a toolmark
20 identification from that part.

21 Q. If the mark is an individual mark.

22 A. Yes.

23 Q. Right?

24 A. Yes.

25 Q. And in this particular case the examiners were

1 relying solely on a breech face mark, correct?

2 A. I was not certain.

3 Q. Is that your understanding?

4 A. But I know that that's one of the marks. But I
5 don't know whether that was the complete extent of
6 it.

7 Q. Well --

8 A. That certainly is -- is one.

9 Q. At least according to her report, the
10 identification is based on a breech mark. She says
11 specifically "breech mark."

12 A. Okay. Assuming, then, that it is based solely
13 on a breech mark.

14 Q. Okay. Then that becomes problematic, correct,
15 if there is indications of subclass characteristics?

16 A. And that's only -- that's the only thing that
17 would make it problematic, if there is indication of
18 subclass influence. If there's not, then it is not
19 problematic.

20 Q. Okay. And I think yesterday we talked about
21 the Rivera article, which has been marked, documented
22 subclass characteristics for the very gun at issue in
23 this case, correct?

24 A. Not for this specific gun at issue, but for the
25 make and model of gun that he had in his case. He

1 doc- --

2 Q. He -- go ahead. I'm sorry.

3 A. So he did in fact document, and I described
4 from your exhibit, the -- the comparison
5 photomicrograph that showed the remarkable agreement
6 between breech face impressions from two entirely
7 different firearms.

8 Q. Two entirely different Smith & Wesson .40VE
9 firearms?

10 A. Yes. They were the same make and model. Their
11 serial numbers were even fairly close to one another,
12 as I recall.

13 Q. Okay.

14 A. So with those guns in his case he, in fact, did
15 document that there was subclass carryover. And
16 those subclass markings that he illustrated could not
17 be used as a basis for a toolmark identification.

18 Q. And let me ask you this. Once somebody in the
19 literature red-flags that there's an issue on
20 subclass characteristics -- and he found the subclass
21 characteristics in the breech face, correct?

22 A. Yes.

23 Q. The exact same area that's being used in this
24 case for the identification?

25 A. Yes.

1 Q. Once somebody in the literature flags that
2 there is a subclass problem, isn't it generally good
3 scientific practice for other researchers in the
4 field to then explore further what the nature of the
5 subclass characteristics are for that particular
6 weapon so that it's accurately characterized?

7 A. Well, the red flag would, and does -- should --
8 caution members of my profession to redouble their
9 efforts, if in fact their efforts weren't already
10 strenuous, to closely evaluate the nature of the
11 working surface.

12 In this case, it happens to be the breech
13 face.

14 Q. Right.

15 A. So actually, with or without Gene Rivera's
16 article every working surface of every tool that's
17 identified by a firearm and toolmark examiner should,
18 in my opinion, be evaluated for subclass influence
19 and the identification only made when the examiner
20 can rule out the subclass influence. Because if
21 there's any subclass influence that you think might
22 be creating some of the marks that you would need to
23 rely on to make an identification, you shouldn't be
24 able to make an identification.

25 Q. Right. And that's one of the reasons why

1 Bonfanti is suggesting, as a solution to subclass
2 characteristics, that you don't rely on a particular
3 cartridge case feature like breech face, but you look
4 at all the features. Because if you rely just on
5 breech face and you mistaken -- you mistake that
6 feature as an individual feature when, in fact, it's
7 a subclass feature, you're making an erroneous
8 identification. So, therefore, it's better to make
9 IDs not based on one feature, but on the whole group
10 of features.

11 A. If, in fact, you are not certain whether you
12 have subclass influence, the answer to your question
13 is definitely yes.

14 Q. All right. And I guess the point I was trying
15 to get at with my question about the Rivera article
16 is: Is it -- he publishes his pictures. He says,
17 "Okay. I fired two .40VE guns. They look remarkably
18 similar," and he puts the photos in the AFTE Journal.

19 Is that the end of the investigation for
20 that particular issue? In other words, if some other
21 examiner said, "Gee, there might be a problem now
22 with .40-caliber S- -- I'm going to try," would the
23 subclass characteristics look exactly the same as
24 what Rivera produced if they -- if he duplicated the
25 study with different .40-caliber SVEs? Or might we

1 see something a little bit different, in light of
2 what you said earlier, about how each time the gun is
3 fired you're going to get different characteristics?

4 Are the subclass characteristics, in other
5 words, always going to look the same?

6 A. No, they wouldn't always look the same.

7 Q. And so does -- does that not suggest that once
8 somebody in the literature identifies that, some
9 class problem, that there has to be a body of
10 empirical research built up to accurately
11 characterize what that subclass looks like before you
12 can say, for instance, "Well, my marks don't look
13 anything like what Rivera produced; and, therefore,
14 there's no subclass problem here."

15 A. The reason why you could have subclass marks
16 that would look different is because in Rivera's
17 case, it was obvious that the same tool, the same
18 cutting tool in the factory, formed both of those
19 breech faces that he was dealing with.

20 So what -- if you compare those, what
21 Rivera's photomicrograph showed was that he has
22 identified that there's -- the same tool in the
23 factory made both of those toolmarks.

24 But if you change that tool, if the tool
25 exceeds its life expectancy and it's removed from

1 service and they put another one in that cuts in a
2 similar way, starting at one side cutting virtually
3 unchanged all the way across without any untoward --
4 any ripping or gouging.

5 If they've got the -- if they have the
6 cutting process down to where they want it, to where
7 lubrication and differences in metal hardness are
8 such that there's a nice smooth cut uninterrupted by
9 any untoward effects of the metal, you would have a
10 similar -- you would have a similar subclass mark,
11 but now it's a new tool.

12 Q. Right.

13 A. So that those -- those toolmarks on those
14 breech faces wouldn't match the one in Gene Rivera's
15 article.

16 Q. Right. And so you need to empirically
17 determine that, right? You need to start looking at
18 it and say, "Okay. Now there's a different process,
19 and so that problem doesn't exist, or it does exist."
20 That's what you need to test?

21 A. Well, you really don't need to conduct any
22 massive empirical study. Once Rivera alerted the
23 profession to the fact that on occasion they use
24 tooling that results in this very uni- -- these very
25 uniform marks that go all the way across, that's a

1 very -- that is a red flag in itself.

2 If any of us were to look at that breech
3 face and see those marks going all the way across on
4 that tool working surface or on any other tool
5 working surface -- and I showed the example of a
6 firing pin.

7 Members of my profession, if they were
8 shown those circular marks on the tip of a firing
9 pin, would know that they should expect to find marks
10 like that on other firing pins.

11 So what they -- but sometimes Smith &
12 Wesson will not use that process. They will not use
13 that cutting process that leaves that nice uniform
14 array of marks. They will use a process that leaves
15 a much more random array of marks.

16 Q. Okay. And where is that document? In other
17 words, who has done that study to support the
18 statement that you just made about what Smith &
19 Wesson will sometimes do?

20 A. You don't need a study to -- to do that. You
21 just need to look at Smith & Wesson guns of the same
22 make and model that Rivera has, which happens to
23 match the make and model of the gun in this case.

24 Q. No, but you're talking about the manufacturing
25 process. You just alluded to what Smith & Wesson

1 does in the manufacturing process. So...

2 A. As revealed by the marks on the breech face.

3 Q. So you -- you don't need to know what the
4 manufacturing process is? You just need to look at
5 the breech face?

6 A. We need to look at the -- we need to look at
7 the tool working surface and see whether or not there
8 is a uniform array of manufacturing marks that, in
9 our experience, might be found on similarly
10 manufactured items, or whether or not there is a
11 random array, an irregular array, the kind of array
12 that you get from processes that aren't as uniform as
13 the process was in the Rivera breech faces.

14 Q. And how do you do that without looking at the
15 actual manufacturing process?

16 A. You look at the -- you look at the tool working
17 surface. You look at the end result of the
18 manufacturing process.

19 Q. But not at the process itself?

20 A. Correct.

21 Q. Okay. But in any event, he's recommending not
22 making an identification based solely on one feature
23 of a cartridge case in a situation where you've got
24 the potential for subclass characteristics?

25 A. That's a good admonition.

1 Q. Okay. And back for a moment to this unsigned
2 Stephen Bunch declaration.

3 He says in the last paragraph of that:
4 "Further, if in casework an examiner examines items
5 for which he knows subclass parts could potentially
6 have occurred, best practices dictate that he account
7 for this and ensure that the strength of his
8 conclusions correspond to the strength of weakness --
9 or weaknesses of the underlying evidence examiner or,
10 alternatively, before stronger identification
11 conclusions justify -- justifiably could be drawn
12 that he conduct additional and detailed research in
13 his particular case to ensure no subclass marks were
14 produced.

15 "It should be noted, however, that if
16 subclass marks are suspected it is highly likely they
17 are present on only one surface area of the specimen.

18 "For example, if breech face marks in a
19 particular instance are known to be problematic, then
20 the examiner would not conclude identity unless there
21 were sufficient microscopic correspondence in
22 non-subclass firing pin impressions, chamber marks,
23 et cetera."

24 Do you agree with that statement?

25 A. Yes.

1 Q. Okay. So how would that apply to this case,
2 where we have published literature indicating that
3 there is the potential for subclass characteristics
4 in the particular gun we're dealing with?

5 What, first of all, additional research
6 should have been done by the examiner before a
7 conclusion of identity was drawn?

8 A. Well, I'm not certain that any research needs
9 to be done. He says that research should be done
10 if --

11 Q. "Additional and detailed research in his
12 particular case to ensure no subclass marks were
13 produced."

14 What additional and detailed research needs
15 to be done in this scenario?

16 A. Well, what needs to be done is that while doing
17 the casework, the examiner evaluates the tool working
18 surface and draws the conclusion that, hopefully,
19 they can justify in some reasonable way that there is
20 or is not subclass influence.

21 If they look at the working surface of the
22 tool that they have identified, in this case the
23 breech face of a pistol, it's their responsibility to
24 evaluate that working surface and make a
25 determination as to whether or not they feel there is

1 subclass influence there.

2 If they feel that it is not there, they
3 should be able to state why. And if they draw that
4 conclusion, they then could consider that they are
5 working with not a subclass-influenced working
6 surface, but a unique tool working surface.

7 Q. And by the way, you subscribe to the view that
8 it's necessary scientific procedure to document how
9 the examiner eliminates subclass characteristics in
10 their notes, correct?

11 A. I think that should be done, yes.

12 Q. You've lectured about that. In fact at this
13 conference you said that, didn't you?

14 A. I did, indeed.

15 Q. Now, was that done in this case? Did you see
16 any documentation of how the examiner eliminated
17 subclass characteristics?

18 A. No.

19 Q. Yesterday you said that you were able to
20 eliminate subclass characteristics by looking at --
21 or you did by looking at the photo in this case?

22 A. Yes.

23 Q. How were you able to do that without looking at
24 the breech face of the tool, which you have just
25 indicated was necessary in order to eliminate

1 subclass characteristics?

2 A. No, I said -- and I think I repeated it
3 yesterday, also. That you either look at the working
4 surface of the tool or you look at a good replica of
5 it.

6 And a replica can be produced by either
7 casting, like I described yesterday with silicone
8 rubber, or the other way you can get a replica is you
9 test fire the gun.

10 And if the markings from the breech face
11 are transferred sufficiently -- with sufficient
12 clarity over to the head and the primer of the -- of
13 the test-fired cartridge cases, you can then evaluate
14 the tool working surface, in this case the breech
15 face, by looking at the marks produced on test
16 firings.

17 Q. So that's not looking at the tool that produced
18 the mark; that's looking at the mark, isn't it?

19 A. Yes.

20 Q. Okay.

21 A. Well, the tool is the breech face.

22 Q. The tool is the breech face.

23 A. Yes.

24 Q. Right?

25 A. Yes.

1 Q. Okay. So when you say in your discussion in
2 Chapter 35 -- we have that long footnote that you
3 said was the longest footnote ever composed in
4 history outside of --

5 A. By a non-attorney.

6 Q. -- non-attorneys?

7 A. Yes.

8 Q. Excluded?

9 A. Yes.

10 Q. You said in that footnote -- what is it, at
11 page 689 of Exhibit 8.

12 "The most reliable way" -- and I think you
13 just said this just a moment ago, but maybe I
14 misheard you.

15 A. 689?

16 Q. 689, part of your long footnote: "The most
17 reliable way to assess the potential for subclass
18 inference" --

19 A. Whereabouts are you on 689?

20 Q. See the heading that says "Direct inspection of
21 tool" --

22 A. Yes.

23 Q. -- "working surface, with ability to
24 differentiate between subclass features and
25 individual characteristics."

1 A. Thank you.

2 Q. "The most reliable way to assess the potential
3 for subclass influence in a toolmark is by direct
4 examination of the responsible tool working surface
5 that produced the mark."

6 Now, where is the tool working surface in
7 that sentence? What are we talking about there?

8 A. In this case, you're talking about the breech
9 face.

10 Q. The breech face of the gun?

11 A. Yes.

12 Q. Which you did not do in this case, correct?

13 A. I did not do that, no.

14 Q. Okay. And I'm showing you what has been marked
15 as Government's Exhibit 53, which the evidence is
16 going to show is a blowup of a photomicrograph
17 comparing the cartridge case found at the crime scene
18 with a gun found in Mr. McCluskey's possession.

19 You've seen that photo -- you've seen
20 copies of that photo?

21 A. Yes. Much smaller views of it, yes.

22 Q. And I wonder if you could turn that so the
23 Court can see what we're talking about here.

24 A. (Witness complies.)

25 Q. And I think you said yesterday you were going

1 to explain how you personally were able to rule out
2 subclass characteristics without examining the gun
3 itself.

4 A. Well, like I just -- like I described a moment
5 ago, you either look directly at the tool working
6 surface, in this case the breech face, or you look at
7 it indirectly, by looking either at a deliberately
8 produced cast or a test firing.

9 If the test firing is marked by the breech
10 face, like we see in the center of the right side of
11 this illustration.

12 Q. Right side is a test fire, right?

13 A. Yes. It's a test fire -- a test-fired
14 cartridge casing. It's the base of the test-fired
15 cartridge casing.

16 Q. You've got to turn it a little bit more,
17 because I'm not sure the Court can see it. And if
18 you need to stand up, feel free.

19 So just walk us through. So on the right
20 side is a test fire.

21 And what is this purporting match -- what
22 is the match based on? Can you look at that and tell
23 us?

24 A. Yes. This is a photomicrograph.

25 MS. MOTT: Your Honor, I am going to object

1 at this point, just because we are now getting back
2 into the facts of the case.

3 Although this person is obviously very
4 knowledgeable and is highly regarded in the field,
5 this is not what we're here for on his testimony.

6 MR. BURT: Well, I think we are here for
7 examining the scientific validity of the testing that
8 was done in this particular case.

9 So I think given his testimony, that there
10 is a way to rule out subclass characteristics. The
11 Court needs to know whether that's been done.

12 Because otherwise, as I hear his testimony,
13 he's saying there is no reliable way to make an
14 identification.

15 So if there is some way that he has said,
16 "Yeah, this is a reliable identification," I think
17 that goes to the methodology issue, which is how --
18 what is the methodology for ruling out the problem
19 that has been identified?

20 THE COURT: All right. I tend to agree
21 with Mr. Burt.

22 I'll overrule the objection.

23 But -- but I do want to just remind you
24 that we are not here to discuss the specifics beyond
25 methodology. So please keep it within that bound.

1 MR. BURT: I will, Your Honor. Thank you.

2 Go ahead.

3 A. This illustration is --

4 THE COURT: Could you turn it just a little
5 bit more so I can see better? There is a little bit
6 of a glare.

7 That's better. Thank you.

8 I can see it fine. Go ahead.

9 BY MR. BURT:

10 Q. Go ahead.

11 A. This is an illustration of a photomicrograph
12 taken through a comparison microscope. The optical
13 dividing line, although it's hard to see, comes right
14 down in the center where I've indicated with my
15 retracted pen.

16 On the right side is a view of a test-fired
17 cartridge casing fired in 1 -- 1B 22 firearm. And on
18 the left side is an evidence cartridge casing, G13.

19 And in the center on the right side you see
20 the firing pin impression.

21 MS. MOTT: I'm sorry to interrupt. I --
22 just a suggestion. It might be better to allow him
23 to use the Elmo, so it might be a clearer view for
24 the Court, in terms of what he is talking about.

25 MR. BURT: Sure.

1 THE COURT: That probably would be better.

2 Go ahead.

3 BY MR. BURT:

4 Q. Go ahead.

5 A. So to continue, on the right side is a view of
6 the base of the test-fired cartridge casing. And on
7 the left is a partial view of a portion of an
8 evidence casing, G13.

9 And the optical dividing line runs down
10 here (indicating).

11 It's a little difficult to see on the
12 actual breech face itself, because it's not black.

13 On the right side, the firing pin
14 impression is in the center. And surrounding the
15 firing pin impression are breech face marks in the
16 primer.

17 The primer is the light-colored area that I
18 am encircling with my pen.

19 Now, the base of the cartridge case is more
20 brass-colored, and that's around the outside.

21 The primer metal is fairly soft, so that it
22 can be crushed by the firing pin as the pin moves in
23 to fire the cartridge.

24 When the cartridge is fired, tremendous
25 pressure is built up, and these toolmarks on the

1 breech -- on the primer were stamped in there by the
2 breech face, which in this case is the working
3 surface of the tool that we're interested in.

4 You can see that these marks, unlike the --
5 do we have Rivera's article?

6 In the toolmarks that Rivera showed, the
7 subclass characteristics there were fairly broad,
8 fairly course marks. Once again, in Rivera's
9 article -- this is on page 251 of the Exhibit N,
10 Defendant's Exhibit N.

11 There's an optical dividing line down the
12 center, and you can see the matching subclass
13 characteristics.

14 The subclass characteristics you can see
15 are continuous. They start on one side and continue
16 virtually unchanged all the way to the other side.
17 That is characteristic of subclass characteristics.

18 Now, notice we go from the very uniform
19 repeatability of these subclass characteristics to
20 the breech face characteristics on the test-fired
21 casing, which we can see most of.

22 These, in contrast to the ones shown in
23 Rivera's article, are not continuous at all, the
24 way -- they form an angle. Many of these are
25 angular.

1 This (indicating) one is fairly continuous,
2 although it falls off near the end.

3 Some of these start and stop.

4 These (indicating) are very irregular down
5 here on the bottom.

6 These (indicating) are irregular. You can
7 see them.

8 Now on the left side of evidence Cartridge
9 Case G3, we see the similar kinds of nonuniform
10 marks. We can't see much of the primer on G3 in this
11 illustration. If we had another illustration of G3
12 showing more of this left side, then we would be able
13 to -- perhaps we could discuss that, too.

14 But these marks are irregular, the same
15 kind of marks that you can see on most of the surface
16 of the test-fired cartridge casing from Item 1B 22.

17 And then right at the dividing line, the
18 examiner has lined up these impressed marks that
19 appear to start on one side of the dividing line and
20 continue over onto the other.

21 Now it's difficult in these kinds of
22 comparisons, because they're compression marks. To
23 show in any one view the totality, what I normally do
24 would be to pull these apart so you could see this
25 area here (indicating) showing up on the -- on the

1 other side of the dividing line. And then your eye
2 could go back and forth, and it would be fairly easy,
3 then, to see agreement.

4 But when you have this type of nonuniform
5 type of toolmarks, that communicates very strongly to
6 the examiner that they are not dealing with the kind
7 of uniform subclass characteristics that has been
8 illustrated so clearly in Gene Rivera's article.

9 Q. Okay. Let me ask you a question.

10 When you say "nonuniform," when you're
11 looking at Rivera's article, it appears at least to
12 an untrained eye like mine, that there's a lot of
13 parallel lines.

14 Would that be accurate?

15 A. Yes.

16 Q. Okay. And then when I look at the image in
17 this case, at least they look parallel to me.

18 A. They are not parallel, no.

19 Q. Okay. And tell -- explain to me why they're
20 not parallel.

21 A. Because they're not parallel to each other.
22 That's why they're not parallel.

23 Q. And would you expect that if subclass
24 characteristics are in operation, that they are going
25 to always exactly duplicate the way they look in the

1 Rivera article?

2 A. No.

3 Q. Or do you get variance, which might produce
4 subclass characteristics that are not neatly
5 parallel?

6 A. The subclass markings that I've seen of this
7 nature are parallel.

8 Q. Okay. And other than the Rivera article, who
9 else has documented in the literature what subclass
10 features look like from a .40VE Smith & Wesson?

11 A. I don't know whether anybody else has. But if
12 they were to, I would expect them to look very
13 similar to these kinds of markings.

14 These -- these really are striated
15 toolmarks on the surface. These striated toolmarks
16 were created by a tool, the same tool in the factory
17 that formed the working surface of these two separate
18 breech faces.

19 These striated marks, then, are sent out
20 into the world. And when -- when the cartridges are
21 fired, these striated marks stamp their impression
22 into the head of cartridge casings.

23 Q. And other than this study, no one else has
24 characterized what the subclass characteristics look
25 like?

1 A. Not to my knowledge.

2 Q. And so you're comfortable based on -- and this
3 is -- Rivera's study was the first time anyone ever
4 discovered that this subcharacteristic problem
5 existed -- subclass characteristic problem existed
6 with this particular weapon, right?

7 A. I believe so.

8 Q. And as far as you know, nobody else has tried
9 to duplicate or characterize what those subclass
10 characteristics look like?

11 A. I don't believe so, but they would look very
12 similar to this. But like I have testified, they
13 might not have this same -- same pattern, because
14 they'd be done by a different tool.

15 Q. Right. And you've seen subclass
16 characteristics that are not that parallel. In other
17 words, they don't look like what Rivera found in this
18 particular case, right?

19 A. Well, that depends on how they're formed. If
20 you look at nails, the heads of nails, for example,
21 the next time -- when I go into Sears and look at the
22 nail bin, or my local hardware store, I look at the
23 nail heads. And I look at them because subclass
24 characteristics are often produced on thousands of
25 nails.

1 Q. And are some of those not parallel?

2 A. They often are not parallel.

3 THE COURT: Are you done with the Elmo?

4 Can the witness return to the witness stand?

5 MR. BURT: Actually, there's one other
6 thing I wanted to ask him.

7 BY MR. BURT:

8 Q. Are you saying that by the standards of -- of
9 your profession, that this photo does not adequately
10 document a basis for an identification?

11 A. No, I'm not -- I'm not saying that.

12 Q. Because I thought you were saying that there
13 were certain things that you would like to be able to
14 see to compare the two that were not in this photo.

15 A. Well, there are other photographs that I would
16 have -- have taken. But during the examination, in
17 order to take this photograph, the examiner certainly
18 looked at these things apart, because they had to be
19 brought together under the comparison microscope in
20 order to take this picture.

21 Q. That's a supposition on your part, correct --

22 A. Yes.

23 Q. -- what the examiner looked at?

24 My question is: Just looking at the photo,
25 is that sufficient documentation of the

1 identification?

2 In other words, can you look at the photo
3 and say, according to the methodology that should be
4 followed, this is adequate documentation, within the
5 meaning of what you talked about yesterday about the
6 absolute need for documentation?

7 A. Yes. This clearly shows the agreement between
8 these two -- these two different breech face marks.

9 Q. And where does it -- what are the points of
10 identity that it shows, or that it documents?

11 A. The points of identity -- once again, this --
12 the dividing line is here (indicating). It's hard to
13 see. It's the faint white line that runs down here
14 (indicating).

15 When you have these impressions that meet
16 and seem to continue on across, you have a series
17 here (indicating), you have them here (indicating),
18 here (indicating), here (indicating), you could count
19 them on up if you chose to.

20 And they're not the regular kind of striae
21 that we have here (indicating). They are the kind of
22 striae that are irregular. They are not parallel.

23 Q. So it's the nonparallel nature? Otherwise,
24 they look pretty similar to what's in there, right?

25 If you just look at the detail of the

1 feature, they look very similar to what Rivera has,
2 when you put aside the parallel nature of it?

3 A. Yes, they do look similar.

4 Q. Okay. So other than their being nonparallel,
5 is there any other basis that you can say that these
6 are not subclass characteristics?

7 A. The fact that these -- some of these start and
8 stop, that's another hallmark of an individual mark.

9 Q. And who has documented that? Who has ever
10 written a paper that says that subclass -- you can
11 return to your seat.

12 A. (Witness complies.)

13 Q. Thank you.

14 Who has -- where, in the 94 pages of
15 literature, can I find a reference that says the
16 hal- -- one of the hallmarks of subclass
17 characteristics is that they start and stop?

18 A. Well, you can find it in the -- in the -- the
19 nonjudicial long footnote that appears in our
20 chapter, where we describe the continuous nature of
21 subclass characteristics.

22 By inference, if it's not continuous, that
23 is characteristic of an individual toolmark.

24 Q. "By inference," you said?

25 So in other words, you do not state in your

1 footnote anywhere that there is a hallmark of
2 stopping and starting. That's -- if I read this
3 footnote, I'm not going to find that language. It's
4 only by inference?

5 A. It's common knowledge that toolmarks that start
6 and stop and that are angular are the kind of
7 irregular random marks that help to create
8 individuality.

9 Q. This footnote was written to guide examiners in
10 assessing subclass characteristics, correct?

11 A. This footnote was actually written mainly for
12 the legal profession.

13 Q. And where in the footnote does it say that that
14 hallmark of -- of subclass characteristics is that
15 they start and stop?

16 A. Well, may I look at it?

17 Q. Sure.

18 A. It's been a while since I -- since we wrote it.

19 THE COURT: While he's reviewing the
20 exhibit, let me ask Mr. Burt about our schedule
21 today.

22 MR. BURT: I'm close.

23 THE COURT: Do you think you'll finish your
24 cross-examination before the noon hour?

25 MR. BURT: I think so. I'll try.

1 THE COURT: Okay.

2 MS. MOTT: Your Honor, just briefly, if I
3 may, Your Honor.

4 I'll object to the form of the question,
5 because I think again it's a mischaracterization of
6 what the witness just testified to, in describing the
7 picture.

8 And he was describing individual marks that
9 start and stop, not subclass characteristics. So
10 it's a different -- I'm not sure what exactly
11 Mr. Burt is asking, if he was asking about individual
12 marks or subclass.

13 BY MR. BURT:

14 Q. Did you not understand the question?

15 A. Oh, I did. And I'm ready to answer it.

16 Q. Okay.

17 THE COURT: Hold on one second. I just
18 need to rule on the objection.

19 MR. BURT: Sure.

20 THE COURT: I do think that the -- well,
21 the objection is overruled.

22 I will give you some leeway.

23 MR. BURT: Thank you.

24 BY MR. BURT:

25 Q. Okay.

1 A. Shall I begin?

2 Q. Yes. If you could, direct me to where --

3 A. Yes. It's page 689.

4 Q. Okay. And where --

5 A. This is about in the middle -- just above the
6 middle of the right-hand column. And then we're
7 going to go over to the next page, too.

8 "During the inspection" -- do you see where
9 I am?

10 Q. Uh-huh.

11 A. "During the inspection of the working surface,
12 recognition of potential subclass characteristics is
13 based on the examiner's training and experience and
14 recognition of indicators that signal the possibility
15 of subclass influence.

16 "Examples of such subclass features include
17 but are not limited to, A, evenly appearing nonrandom
18 contours, either impressed or striated.

19 "B, prominent striated markings on the
20 interior of a gun barrel bore that remain unchanged
21 throughout the entire length of the barrel.
22 Typically, the heavier the marking, the greater the
23 chance of this occurring.

24 "C, impressed striations transferred onto
25 the tool working surface that remains relatively

1 unchanged across the entire working surface, typical
2 on some ejector or breech faces, for example.

3 "These features suggest that the
4 manufacturing tool responsible for placing the final
5 finish on the tool working surface remains relatively
6 unchanged during the machining process, such that it
7 is reasonable to expect that the same features,
8 subclass characteristics, will be repeated on similar
9 tool working surfaces.

10 "The presence of such indicators should
11 make the examiner doubt the uniqueness of these
12 features, leaving the possibility that another tool
13 could produce such markings.

14 "In contrast, the examiner must be able to
15 recognize the presence of randomly produced defects
16 that stand a very remote chance of being repeated
17 from tool working surface to tool working surface
18 that provide a basis for the tool's individuality or
19 individual signature.

20 "Such individual features that can be
21 considered unique to the tool working surface
22 include:

23 "A, nicks and gouges produced by random
24 pieces of metal, which mark the tool surface being
25 produced because of pressures, movement coincidental

1 to the manufacturing process.

2 "B, machine chatter in milling operations.

3 "C, fracture patterns caused by the
4 mechanical separation or tearing of metal in certain
5 machining operations such as shearing.

6 "And, D, striated markings that change
7 rapidly within the boundaries of the tool working
8 surface during its manufacture."

9 So that's the number of different ways that
10 indicate that there can be stopping and startages in
11 various ways.

12 Q. Right. And you are -- it's important to say
13 "examples include but are not limited to," in terms
14 of identifying what subclass characteristics are,
15 right?

16 A. I'm sorry. Where were you reading from then?

17 Q. Where you started. It says: "Examples of such
18 subclass feature indicators include but are not
19 limited to," and then you list a bunch of them.

20 A. Yes.

21 Q. So there can be other features of subclass
22 characteristics that you don't have enumerated here,
23 right?

24 A. There can be.

25 Q. And then you try and distinguish those from

1 individual marks, which you also give some examples
2 of.

3 A. Yes.

4 Q. Right?

5 For instance, you say nicks and gouges?

6 A. Yes.

7 Q. Are there nicks and gouges in the photo?

8 A. I didn't particularly evaluate it for -- there
9 are stoppages and startages. There are some
10 depressed areas, so there very well could be.

11 Q. But you can't identify them, right? In other
12 words, you can't look at that photo and say, "Yeah,
13 there's a bunch of nicks and gouges in here, and that
14 allows me to say this is an individual mark and not a
15 subclass mark."

16 A. I didn't look at it for that purpose.

17 Q. Okay. Did you see -- the second one you list
18 is "machine chatter in milling operations."

19 Do you see any indications of machine
20 chatter in milling operations in any features of that
21 photo?

22 A. I can't tell by looking at the photograph.
23 Usually you won't find that on breech faces.
24 Except -- I don't think that was end milled.

25 Q. Well -- so your answer is: There is no

1 indication of the individ- -- you're characterizing
2 individual marks. The second one you list is machine
3 chatter.

4 Your testimony is you don't see any
5 indication of machine chatter in that photo, correct?

6 A. That's right.

7 Q. The third one you list is fracture patterns
8 caused by the mechanical separation or tearing of
9 metal.

10 Do you see any indications in that photo of
11 fracture patterns?

12 A. There could be, but I can't tell for sure.

13 Q. Well, when you say there could be --

14 A. I didn't evaluate it for that purpose.

15 There are some gouges that you can see.
16 This is not very clear on my monitor, but there are
17 some -- some areas that I see that have the potential
18 of being that way.

19 I wouldn't -- these --

20 Q. In the area that's being singled out for
21 comparison and identification, you see gouges?

22 A. Well, it's hard to tell. Because as I said,
23 you have them right next to each other. Usually you
24 would want to see the right side in its entirety.

25 Q. I thought you were -- I asked you to -- where

1 the areas of identity were, and you pointed to some
2 parallel lines.

3 A. I did.

4 Q. You didn't point to any gouges.

5 A. I pointed to parallel lines.

6 Q. Right. So in the area --

7 A. Not parallel lines. I pointed to lines.

8 They're not parallel.

9 Q. In the center of the photo here, the lines -- I
10 think you sort of went, "That's one of them," right?

11 A. Yes, I did.

12 Q. Another one is here (indicating)?

13 A. Yes.

14 Q. And you are saying that that first line is not
15 parallel to the second?

16 A. It's close, but I can't tell whether it's
17 exactly parallel or not.

18 I didn't look at these -- these items. I
19 didn't look at the evidence.

20 Q. Right.

21 A. I didn't look at the gun. All we're looking at
22 is a photomicrograph, which is -- it's good, and
23 under the best of conditions you could make value
24 judgments regarding identification or not.

25 But the best evidence is what the examiner

1 looked at.

2 Q. In this particular case, are you saying you can
3 make value judgments about whether this is an
4 identification or not?

5 A. I'm saying that sometimes with good
6 photomicrographs -- and I think this is a good
7 quality photomicrograph -- this amount of agreement
8 strongly would suggest to me that the same gun fired
9 both of those cartridge cases.

10 Q. Okay. So you said the first two lines that you
11 pointed to that are the basis for the identification,
12 at least as far as you can see, are not exactly
13 parallel. Do they have to be exactly parallel to be
14 a subclass characteristic?

15 A. If you look at the lines in Rivera's breech
16 faces, those look much more parallel to me than
17 virtually any of the lines on these breech faces.

18 Q. Well, let's be precise, since we're talking
19 about science here, supposedly.

20 A. Are we through with the subclass article?

21 Q. Yes.

22 "They look more parallel."

23 Do they have to be precisely parallel in
24 order to be a subclass characteristic?

25 A. I don't determine whether they're exactly

1 parallel or not.

2 Q. And you don't know whether they're exactly
3 parallel in Rivera's article or in the evidence in
4 this case?

5 A. No, because I never measured them. I never put
6 straight edges on them to determine whether they are
7 exactly parallel.

8 Q. So since you've never measured them, you can't
9 say that lines have to be exactly parallel in order
10 for them to be subclass characteristics, can you?

11 A. They have the appearance of being parallel
12 under the comparison microscope.

13 Q. And do the first two lines that I am pointing
14 to appear to be parallel to you?

15 MS. MOTT: Asked and answered, Your Honor.

16 A. No.

17 THE COURT: We have really been beating a
18 dead horse.

19 MR. BURT: Sure.

20 BY MR. BURT:

21 Q. And the other lines you pointed to are the ones
22 below that, just to complete this.

23 A. There are a number of lines that I pointed to.

24 Q. Here (indicating) and here (indicating),
25 correct?

1 A. And there are others.

2 Q. Okay. None of those are gouges, though, right,
3 or fractures?

4 A. It's hard to tell, since they're right next to
5 each other at the dividing line.

6 Q. And the last characteristic you list of an
7 individual characteristic is: "Striated markings
8 that change rapidly within the boundaries of the tool
9 working surface."

10 Do you see any indication of that here?

11 A. Yes. There are marks that -- I'm sorry. I
12 thought we were done with the footnote.

13 What page is that on?

14 Q. 680- --

15 A. 680.

16 Q. 689. I'm sorry, 690.

17 A. There are marks. There are many marks that
18 start and stop on this breech face.

19 Q. And where are they?

20 A. Well, there are some right near -- if we're
21 looking at the -- at the breech face right --
22 right -- not -- we're looking at the breech face not
23 right at the dividing line, but to the right of the
24 dividing line.

25 What you asked me to do is to describe why

1 I would evaluate that surface as a
2 non-subclass-influenced surface.

3 And one of the things that I mentioned was
4 the angularity of these marks and the fact that a
5 number of them start and stop. They're not
6 continuous all the way across. And there are many
7 instances of starting and stopping --

8 Q. And would it --

9 A. -- at various places on this breech face.

10 Q. Could you point to one of them?

11 A. You want me to come over there again?

12 Q. Yeah. I just want to know what you're talking
13 about, because it's not clear.

14 A. (Witness complies.)

15 Here's (indicating) an example of one right
16 here that starts here (indicating), stops here
17 (indicating).

18 Q. That's not in the area being identified though,
19 is it?

20 A. That's correct.

21 Q. Okay. So that's got nothing to do with the
22 identification in this case, correct?

23 A. I don't know whether it does or not. Because
24 the dividing line, which doesn't show a comparison
25 between that part of the questioned cartridge case

1 and that part of the test cartridge case.

2 Q. Well, your footnote --

3 A. You asked me to show examples of starting and
4 stopping, and I just did.

5 Q. Right. But your footnote refers to how an
6 examiner can distinguish, in the area being compared,
7 between subclass marks and individual marks.

8 And what your footnote says is, look in
9 that area to see if there are starting and stopping
10 lines.

11 And what you just pointed to was outside
12 the area being compared.

13 A. It is the outside of the area being compared at
14 the dividing line in that photomicrograph.

15 But you asked me to describe how I would
16 evaluate the working surface of that breech. The
17 working surface of the breech is represented by
18 360-degree toolmarks all the way around that firing
19 pin impression. And I just showed you an example of
20 an area that agrees with D in my footnote.

21 Q. Okay.

22 A. And there are other areas as well.

23 Q. Okay. Now, you said that this type of
24 photomicrograph is adequate documentation, according
25 to what you teach examiners, correct?

1 A. This is one comparison area that is being
2 illustrated here. I don't know whether there are
3 other comparison areas, but this is certainly one.

4 Q. Okay. I'm showing -- and you and your
5 co-presenter, Bruce Moran, present on this issue of
6 documentation, don't you?

7 A. We do.

8 Q. Are you familiar with Exhibit S, which is a
9 presentation by Bruce Moran?

10 And I'm not asking whether you're familiar
11 with this specific presentation, but with the
12 material in there, the kinds of photographs that he
13 is using to illustrate his points.

14 A. Generally, yes.

15 Q. One of the things he's doing here, is he not,
16 is illustrating for his audience, who I assume are
17 forensic scientists, proper documentation techniques
18 of an identification.

19 A. Well, that's not the subject of this PowerPoint
20 presentation, but he does have some illustrations of
21 documentation.

22 The title is "Numerical tabulation of CMS
23 and the application of the conservative quantitative
24 CMS criteria to striated toolmark identification."

25 And it's dated May 15, 2006.

1 Q. And one of his slides is -- I'm putting it up
2 there on the board -- is a side-by-side comparison
3 which actually identifies the areas being compared,
4 right?

5 A. He is showing a number of things here. The
6 brackets are grouped around areas of consecutive
7 matching stria, so he has identified groups of CMS.

8 He's also encircled areas where there's
9 some information that is -- we consider background
10 noise, and that's why those are circled.

11 Do you have a page number for that?

12 Well, there are no pages.

13 Q. There are no pages.

14 Now, another one in that -- this is not
15 marked. It's got...

16 Isn't this photograph, that I've got up
17 there now, the way you properly document an
18 identification in terms of pointing out exactly
19 what's being compared?

20 A. If you use quantitative CMS, it is one way to
21 do it. He's got groups of CMS delineated.

22 Do you see the 3X and 3X?

23 Q. Yes.

24 A. That means two groups of three consecutive
25 matching striae. That's what he is showing here.

1 Q. So this is a way to objectively document the
2 basis for an opinion, right?

3 A. Yes, it is one way to document.

4 Q. So in -- another examiner, or somebody who
5 doesn't have training, could look at this and see
6 exactly what's being compared?

7 A. Yes, another examiner who is trained. I don't
8 think a person with no training could look at it and
9 make much of it at all.

10 Q. And similarly, he's got examples of proper
11 documentation of what -- what your notes should look
12 like, correct, this particular one on --

13 A. This is what Bruce Moran's notes looked like in
14 this case.

15 I think this is a summary of one of the
16 European proficiency tests using high-quality
17 replicas. And Bruce Moran takes these kinds of
18 notes. I don't take these kinds of notes.

19 Q. Shouldn't these kinds of notes be taken to
20 illustrate what's being compared and what's not being
21 compared to the cartridge cases?

22 A. Notes should be taken that clearly reflect what
23 is examined and what the basis of your conclusions
24 are. How a person wants to do that is up to them.

25 I mean, I don't type any of my notes. He

1 types almost all of his notes.

2 Q. So there are no uniform standards for
3 documentation?

4 A. The standard is as I just expressed. They
5 should clearly and unequivocally state the basis for
6 an examiner's conclusions in sufficient clarity that
7 a person that is skilled in the examination of this
8 kind of evidence could make sense out of what those
9 notes say.

10 Q. So if the notes merely say the identification
11 is based on breech -- breech face, is that adequate
12 documentation?

13 A. If -- if it is supplemented with illustrations.

14 Q. And do the illustrations just involve putting a
15 comparison between the questioned and the known
16 without certain -- delineating what it is that you're
17 relying on?

18 A. Most of the time, unlike -- I think that Moran
19 delineated this because he was invited to go to
20 Europe and present his findings to a group of people
21 that do not use quantitative CMS.

22 So his -- he illustrated this very heavily
23 for that purpose.

24 This is not the typical kind of
25 illustration that you would see in a photomicrograph

1 that's presented in court. I don't illustrate mine
2 in this way, for example.

3 Q. So when you said yesterday that one of the keys
4 to the validity of your field was proper
5 documentation --

6 A. Yes.

7 Q. -- you aren't subscribing to any detailed
8 documentation. It's really one of those subjective
9 judgment calls by the examiner as to how they
10 properly document. There are no uniform standards?

11 A. I do subscribe to detailed documentation. And
12 the overarching way that you should do it is the way
13 that I have already described.

14 Q. Which is, just make sure that there's a basis
15 stated for your opinion?

16 A. It should be clear and unequivocally stated how
17 you did your work, what you based your decision on,
18 so that somebody -- if you were to hire somebody
19 skilled in this field, for example, and you had them
20 evaluate the notes, they should be able to come back
21 to you and say, "I understand exactly what was done
22 and what the basis for the conclusions are."

23 Q. The last article that I wanted ask you about
24 was the -- and you mentioned it several times
25 yesterday -- was the -- this Hamby article that you

1 kept citing.

2 Do you remember that?

3 A. Yes.

4 Q. Is that in your 94-page summary?

5 A. It probably is. I don't remember, though.

6 THE COURT: We'll take our lunch break at
7 this time. It's about 12:00.

8 I'm going to suggest again that we take an
9 hour and 15 minutes for lunch.

10 And so we will see you back here at 1:15.

11 Actually, before we leave, let me ask.

12 I don't seem to have Exhibit J, although I
13 thought I did.

14 So if you picked up an extra copy of
15 Exhibit J along the way, it may be the Court's.

16 MR. BURT: Yes. I can provide that.

17 THE COURT: All right. And then just one
18 last question on -- how close are we to being done
19 with this witness for the day?

20 MR. BURT: Pretty -- I don't know how much
21 redirect, but I'm pretty close on the cross.

22 THE COURT: What do you think, Ms. Mott?

23 MS. MOTT: You know, I'm going to try to
24 keep it as quick as possible. We're probably going
25 to have to change some travel plans. He's scheduled

1 to fly out at 3:45, and we were obviously hoping to
2 be able to set him free at lunchtime. But I'm going
3 to be as quick as I possibly can.

4 THE COURT: All right. And there's no need
5 to be repetitive. We don't need to hear the same
6 testimony multiple times.

7 Please try to be efficient, everyone.

8 (A recess was taken from 12:00 noon to 1:21
9 p.m.)

10 THE COURT: Please be seated.

11 We're back on the record in USA versus
12 McCluskey.

13 Mr. Burt, are you getting close?

14 MR. BURT: Yes, I am, Your Honor. I have
15 in mind the Court's admonition when we broke.

16 BY MR. BURT:

17 Q. Just a couple more points, if we could.

18 You testified yesterday about the AFTE
19 theory of identification, correct?

20 A. Yes, I did.

21 Q. And when did that theory first come into
22 publication?

23 A. 1992.

24 Q. And it's true, is it not, that they recently
25 changed that theory in direct response to this Rivera

1 article that we have been discussing this morning?

2 A. Yes.

3 Q. Okay.

4 MR. BURT: I've marked as next in order --

5 BY MR. BURT:

6 Q. I'm showing you Exhibit T. Can you identify
7 for us what that is?

8 A. Exhibit T consists of several things.

9 First, the first page is page 287 from the
10 AFTE Journal, Volume 43, Number 4, fall, 2011. And
11 it has, essentially a report of the -- of the
12 revisions, the minor revisions, that my committee
13 requested in the AFTE theory of identification as it
14 relates to toolmarks.

15 Q. So from 1992, when the theory was adopted,
16 until this change was made, were there any other
17 changes made?

18 A. No.

19 Q. This is the one and only change that was made?

20 A. Yes.

21 Q. And the commentary says: "The committee felt
22 it was necessary to make these additions in order to
23 account for the possible influence of subclass
24 characteristics when determining if sufficient
25 agreement exists to conclude if two firearms share a

1 common origin.

2 "The need for these additions was first
3 recognized by AFTE member Gene Rivera, at page 250 of
4 his article."

5 And then they cite the article?

6 A. Yes, only you said "if two firearms share a
7 common origin," but it reads "if two toolmarks share
8 a common origin."

9 Q. Correct. I apologize for that.

10 Okay. And explain to us what the
11 difference was and how the difference was meant to
12 address the problem that Rivera identified.

13 A. The way it was originally worded, it did not
14 really take into account the presence of subclass
15 characteristics. So two words were added, and they
16 were -- the words are individual. So that makes the
17 theory -- that addition that was agreed to by -- by
18 the board, that makes the theory of identification
19 applicable only to individual characteristics.

20 Q. And prior to this time the theory, or the
21 standard, did not specify that?

22 A. That's correct. And so what this did -- I
23 requested this, as the chairman of the advancement of
24 science of firearms and toolmarks committee --
25 admittedly, I should have requested it earlier, but I

1 requested it.

2 Q. Uh-huh.

3 A. And they changed it. And this places -- this,
4 indeed, places another burden on the examiner who
5 follows the AFTE theory of ID to ensure that the
6 toolmarks that they identify are truly individual in
7 nature and are not influenced by the presence of
8 subclass features.

9 Q. And when did this change go into effect as
10 official AFTE policy? I think I attached some
11 meeting notes that might help refresh your memory on
12 when that happened.

13 A. Yes. These meetings notes are -- this is a
14 meeting of the AFTE 2010/2011 business board. And it
15 was at the Drake Hotel, Chicago, Illinois, May 30,
16 2011.

17 Q. And it became -- when was it published in the
18 AFTE Journal? This is listed as the fall of 2011.

19 A. Yes. This is the AFTE supplement. And of
20 course the AFTE supplement is not available to very
21 many people. It's not indexed on the AFTE website.
22 You cannot buy journals that contain articles that
23 you want to look at.

24 So -- and there have been two or three
25 things throughout the history of the supplement that

1 I have written and requested them, please publish
2 these in the journal, so that you have a wider
3 audience that can access these. And this is an
4 example of that.

5 So in this -- in these hotel meeting
6 minutes, this is the report of -- the oral report
7 that I presented in Chicago, as representative of the
8 committee for the advancement of the science of
9 firearm and toolmark identification.

10 And then it begins by saying: "On 2-25-11,
11 the committee sent two recommended additions to the
12 AFTE theory of ID to the president. These additions,
13 which specify the toolmark agreement must be between
14 individual characteristics, were approved on 2-22-11
15 by all members of the committee."

16 And then it goes on to say why I felt it
17 necessary -- my committee. I say that I initiated
18 it, but all members of my committee agreed with the
19 need to include those.

20 Q. Now prior to this change, most laboratories
21 incorporated the AFTE theory of identification into
22 their lab protocols, correct? At least as far as
23 you're aware.

24 A. I think a lot of them have done that, yes.

25 Q. But some people made modifications. For

1 instance, the ATF protocol manual is different than
2 the way the theory is spelled out prior to the
3 change, isn't it?

4 A. I'm not really aware. Although I worked for
5 ATF for 15 years, I don't remember what they -- how
6 they worded theirs.

7 I know that some people, in their policies
8 and procedures, incorporate a summary of the AFTE
9 theory of identification.

10 Q. Do you -- in Contra Costa County, is that
11 theory part of your manual?

12 A. I believe it is. And I think we incorporated
13 the entire theory of ID.

14 Q. And do you also incorporate the qualitative
15 CMS --

16 A. Yes.

17 Q. -- part of it into your manual?

18 A. Yes.

19 Q. But that -- the CMS part of it is not part of
20 the AFTE theory.

21 A. Correct.

22 Q. Correct? Okay.

23 So would it be fair to say that prior to
24 this change being made that lab protocols could not
25 have had what is now the standard in their protocols?

1 A. Well, they wouldn't have it with the word
2 change that is here. They wouldn't have it with the
3 inclusion of those two words, individual.

4 They would -- they would have it the way
5 that it was adopted unanimously in 1992.

6 Q. And to your knowledge, no further published
7 work has been done, since Rivera published his
8 article in 2008, on the particular problem that he
9 addressed, right?

10 A. I don't know of any other work that's been done
11 on that make and model of pistol.

12 There certainly have been other things
13 published on the subject of subclass characteristics.
14 But I'm not -- there may be something specific to
15 that make and model. But if there is, I'm not aware
16 of it.

17 Q. Exhibit -- you talked yesterday about these
18 European proficiency tests --

19 A. Yes.

20 Q. -- that represented a more realistic case
21 scenario than what you see with the CTS folks.

22 A. Yes.

23 Q. And I've had marked as Exhibit U, which is
24 going to include two documents, one says "Results
25 FAID2005," and the second part of it says "FAID2005,

1 proficiency test description."

2 Have you had a chance to review those two
3 documents?

4 A. I did review them briefly. It took longer to
5 check out of my hotel than I thought it would, so I
6 just had very -- I had very little time to look at
7 them.

8 Q. And I think you said that your memory, without
9 actually looking at these studies, was that there was
10 about a 5 percent error rate.

11 A. Well, that's what I recall. But I don't
12 remember whether it was the 2005 test or -- they did
13 another one in 2009. And I don't think the results
14 have been published yet, although I think some
15 results about the '09 test were presented at the AFTE
16 meeting held in Chicago at the same time that the
17 minutes were prepared that I read. That would be in
18 May, actually, of -- I'm sorry. I said 2010. That
19 would be May of 2011.

20 As I recall, there was an oral presentation
21 made by the same author whose name appears on the
22 front page of Defendant's Exhibit U.

23 Q. And U are the results of the 2005 European
24 proficiency tests, right?

25 A. Yes.

1 Q. And it's got a tabulation of false positives
2 there, does it not?

3 A. It does.

4 Q. Can you decipher it for us?

5 A. You asked me to do it before the break. And if
6 I could do it, I -- I would love to be able to do it.
7 But I can't decipher how they have listed these.

8 They have a different range of conclusions
9 that they go by, which they describe here. But the
10 way that the results are listed, I -- I can't -- it's
11 not clear to me what the false positive rate is.

12 Q. There are two sort of numbers. One is
13 7 percent, 7.4, and 9.5?

14 A. Yes.

15 Q. Is one ambiguity whether you need to add those
16 two for a total error rate of 16 and whatever the
17 decimal point is?

18 A. Yes, if it is a decimal point. It appears as
19 commas in this -- in this printout.

20 Q. The Europeans use commas instead of a point?

21 A. Oh, they do? I don't know.

22 Q. I am asking you.

23 A. I don't know. I'm sorry.

24 Q. Okay. So you wouldn't be able to decipher what
25 the error rates mean for this?

1 A. No. I would love to be able to, but I'm sorry,
2 I can't.

3 Q. All right. Going for a minute, just back to
4 your amended theory of identification.

5 It says: "Specifically the relative height
6 or depth, width, curvature and spacial relationship
7 of the individual peaks, ridges, and furrows within
8 one set of surface contours are defined and compared
9 to the corresponding features in the second set of
10 surface contours."

11 That is theoretically stating how the
12 process should work, correct?

13 A. Yes.

14 Q. But in reality, your field does not measure
15 relative height or depth or width of striations?

16 A. Correct.

17 Q. You're capable of doing that, you just don't do
18 it?

19 A. Correct.

20 Q. And by "you" I mean the field.

21 A. Correct.

22 Q. You -- earlier on, I think I read one of your
23 papers where you came up with a pretty ingenious way
24 of measuring depth using some sort of plastic.

25 Do you remember that?

1 A. Yes, I do.

2 Q. And that allowed to you actually make the
3 measurement?

4 A. Yes.

5 Q. And I think you've stated somewhere that we
6 could measure these features if we wanted to, we just
7 don't do it?

8 A. Yes. That's right.

9 Q. Okay.

10 A. And if we saw utility in measuring them we
11 would.

12 Q. And so would the utility be in creating a more
13 objective measure of -- of measurement, in terms of
14 the individual features you are looking at? Would
15 that be the purpose of that?

16 A. In a general way, yes. And as I have
17 mentioned, the analytical methods, such as confocal
18 microscopy that are used now, actually measure depth.
19 And so I'm hopeful that with those new methods of
20 analytical work that we can perhaps do something with
21 the actual measurements that they give.

22 Q. The whole thrust of that NES conference that
23 you referenced yesterday, was on technologies -- new
24 technologies that are attempting to measure and
25 quantify the features that, up to this point, are

1 just being sort of subjectively evaluated, correct?

2 A. Yes. The purpose was trying to bridge the gap
3 between the people using optical microscopy, to make
4 conclusions such as we have been discussing the last
5 day or so, and the people that are doing the
6 mechanical means of measuring depth.

7 Q. Okay. But one of the presentations there was
8 on existing technology.

9 Do you remember that, a guy from Illinois?

10 A. Yeah. Well, there's one fellow from Illinois
11 that made a presentation on the type of microscopy
12 that's used. Is that the one you're referring to?

13 Q. Yes. And he --

14 A. Bill Demuth, I believe it was.

15 Q. All right. And he had some slides of
16 something, I think it's called a retinue [sic]. Do
17 you know what that is?

18 A. I remember him saying that. But, no, I don't
19 know what that is.

20 Q. Let me move on to something else, which is: In
21 making an elimination, are there differences within
22 your field on how that's done; in other words, how
23 you eliminate a weapon as being -- or a cartridge
24 case as being fired from a particular gun?

25 A. Yes.

1 Q. And what are the differences? What are the
2 different approaches to that?

3 A. Well, eliminations can be done, as you say, in
4 several ways.

5 If you have a firearm to compare, and you
6 have evidence, bullets, or cartridge cases, you can
7 usually -- if the class characteristics are -- are
8 definitely different, you can -- you can positively
9 eliminate. And that's not a practical cono- --
10 that's not a practical impossibility. That's an
11 absolute elimination, in that there's no way that
12 those bullets or cartridge cases could have been
13 fired in that particular gun.

14 If you have -- if you have no gun and you
15 have cartridge cases from different crime scenes, for
16 example, or you have fired bullets from different
17 crime scenes, if the class characteristics are -- are
18 markedly different, you can reach the same absolute
19 conclusion.

20 However, there is a variance that you --
21 that examiners expect in class characteristics, such
22 as land impression widths, groove impression widths.
23 Depending on the ammunition used and depending on,
24 perhaps, a length of time since the first cartridge
25 cases or bullets were fired, if the passage of time

1 has been sufficient, then the firearm could change
2 due to excessive firing.

3 Then it's also possible to eliminate -- if
4 the class characteristics are -- if they agree, can't
5 be ruled out on the basis of differences in class
6 characteristics, if there is substantial difference
7 in the nature, the appearance of the microscopic
8 marks, the striations that appear, say, on fired
9 bullets, and you can account for the presence -- you
10 can account for the presence of that gun being in a
11 similar condition when you got it; in other words,
12 it's not been a great length of time such that the
13 gun could change.

14 If the gun has been, for example, collected
15 right away and you know there's very little chance
16 that somebody could go out and fire 3- or 400 or a
17 thousand rounds of whatever ammunition at the range,
18 and you -- you have a gun collected contemporaneous
19 to a shooting, for example, and you get bullets,
20 class characteristics agree.

21 And let's suppose with -- we have the best
22 circumstance, when we have more than one fired bullet
23 from a crime scene, that we have three or four. If
24 we have three or four we intercompare those and we
25 can see whether or not the striations are really

1 reproducible.

2 Let's assume they are. Let's assume they
3 are fairly fine, evenly distributed, and you get a
4 gun collected contemporaneous that has the same class
5 as those fired bullets.

6 But you test fire similar ammunition, the
7 same brand and type and, hopefully, made at about the
8 same time, and the striations have a markedly
9 different appearance. Very reproducible, but very
10 different.

11 In that instance I would feel comfortable
12 eliminating that firearm, even though the class
13 characteristics agreed very well.

14 Q. So is there -- for instance, does the FBI have
15 a policy that they will not eliminate based on the
16 individual characteristics?

17 A. I think that is their policy. I'm not certain,
18 but I've heard that.

19 Q. And how about the ATF? Don't they have a
20 policy saying, "We will not do an elimination based
21 on individual characteristics"?

22 A. Well, we were able to do that when I worked for
23 them, but I haven't worked for them since 2008. So I
24 don't know what their policy is now.

25 Q. When you say you were able to do "that," what

1 is "that"? Eliminate based on individual
2 characteristics?

3 A. Yes. What you just asked me, yes.

4 Q. The presentation that you referenced at the NES
5 conference, that's by William Demuth?

6 A. Yes.

7 Q. ATF Standardization and Training Committee?

8 A. Okay. Yes. Yeah. He's with the Illinois
9 system. That threw me for a minute, because he is on
10 the ATF committee. Yes.

11 Q. Is that it?

12 A. Yes.

13 Q. And he reviewed various measuring devices
14 currently used, not things that are going to be used
15 in the future, right?

16 A. That's correct.

17 Q. One of the things he identifies in his
18 PowerPoint is something called a reticule, which is
19 employed as a component of the stereo comparison
20 microscope used for small-scale dimensional
21 measurements of fired evidence.

22 Are you familiar with that device?

23 A. I am. When you mentioned it the first time, I
24 don't know whether you mispronounced it or what, but
25 I didn't recognize it.

1 Q. Yeah, probably. How do you pronounce it?

2 A. It's pronounced reticule.

3 Q. Reticule?

4 A. Yes.

5 Q. Is that an expensive piece of equipment?

6 A. No.

7 Q. It allows to you actually make measurements
8 within the comparison microscope?

9 A. You could. But it's used here also, as he has
10 pointed out, under the stereo microscope, also.

11 Q. And it allows you to photograph your
12 measurements for -- to allow measurements under the
13 microscope of a bullet or a cartridge casing?

14 A. Yes. You could use it for that, yes.

15 Q. But as far as you know, was that device
16 employed in this case?

17 A. I don't know whether it was or not. I don't --
18 I never use one, for example.

19 Q. You don't -- even though the technology is
20 available currently to measure the depth and the
21 width, you don't use that?

22 A. No, reticules have been around for many, many
23 years.

24 Q. Okay. Are you -- you said your -- you keep up
25 on the literature. Are you aware of these

1 proceedings that the ASCLD forensic research
2 committee conducted in September of 2011?

3 A. Probably not. I don't follow ASCLD anymore.

4 Q. ASCLD are the people -- the crime lab people
5 who set the standards that you referenced yesterday?

6 A. I don't recall. Which standards are you
7 talking about?

8 Q. Well, I think you said ASCLD accredits labs and
9 labs have to have standards in order to be
10 accredited.

11 A. Yes, ASCLD/LAB is separate from ASCLD. ASCLD
12 is the American Society of Crime Laboratory
13 Directors. They established -- they established
14 ASCLD/LAB as the accredited group. So it's
15 ASCLD/LAB. It's ASCLD, and then, dash, laboratory
16 accreditation board.

17 They set the accreditation criteria and
18 they require that you have certain policies and
19 procedures that address many things of value.

20 Q. Right. And you said yesterday your field has
21 standards for conducting examinations, and also other
22 kinds of standards, correct?

23 A. Yes. AFTE has promulgated some standards. I
24 think SWGGUN has, also.

25 But individual laboratories have to -- have

1 to formulate policies and procedures. Ours just went
2 through revision, for example. So they're updated
3 constantly.

4 Q. And you mentioned SWGGUN. I don't think the
5 material you presented has any of the standards
6 themselves, correct?

7 A. That's right.

8 Q. But one of the standard -- the people defining
9 standards are -- I think you refer to them as SWGGUN?

10 A. Yes.

11 Q. And they have a bunch of standards on their
12 website, correct?

13 A. They do.

14 Q. One of them is a standard called transition
15 from ASCLD/LAB legacy to ISO 17025?

16 A. I have not read that document.

17 Q. Okay. Do you know what ISO 17025 is?

18 A. It's an international accreditation standard.
19 And most laboratories are now going to ISO standards.

20 Q. And one of the things that ISO standards
21 require is that each lab have a way to measure
22 uncertainty. Isn't that true?

23 A. Yes.

24 Q. And the SWGGUN standards address that issue, do
25 they not, in terms of how your field is going to

1 comply with that?

2 A. I haven't read it.

3 Q. Is it your understanding of the applicable
4 standard that the lab -- for anything that's
5 measurable that the lab is doing, that they have to
6 calculate and report what the measurement error is
7 for a particular measurement?

8 A. I believe that applies to measurements that are
9 considered critical.

10 Q. Right. And certainly, according to the AFTE
11 theory of identification, the width, depth, and
12 length of individual striae is critical, is it not,
13 under your definition?

14 A. Well, they are certainly critical for the
15 comparison process, but they do not have to be
16 measured.

17 Q. And of course unless you measure them, you're
18 not going to be able to calculate any sort of error
19 rate in your measurements?

20 A. There's no need for to measure them. But if
21 you don't measure them, you certainly couldn't
22 calculate any type of error.

23 Q. You feel there's no need to measure them
24 because, instead of measuring them, looking at them
25 under the microscope and not using any measurements

1 is enough to reach conclusions?

2 A. Yes.

3 Q. Then, Exhibit W.

4 Are you familiar with these proceedings of
5 ASCLD about where they should be heading with
6 research efforts?

7 A. No. As I say, I was in ASCLD for ten years.
8 Once I retired from the -- from their group, I -- and
9 returned to the bench, I don't have time or the
10 inclination to keep up with ASCLD activities.

11 Q. Would it surprise you to learn that that
12 document indicates that when they were considering
13 research priorities, they thought that researching
14 your field was even more critical -- in terms of
15 validity studies -- was even more critical than the
16 fingerprint field because of the absence of
17 applicable studies upholding the validity and
18 reliability of fingerprint -- I mean, firearms
19 examinations?

20 A. Well, I don't know why they -- why they chose
21 to have us be number one, but I'm happy that they
22 did. Any time we can gain the attention of
23 laboratory administrators that's a good thing.

24 Q. Does it in any way contradict your assertion
25 that the field has been well-validated, to learn that

1 ASCLD is proposing that your field needs research to
2 establish the validity of the field?

3 A. No.

4 Q. Okay. And then lastly, in your Chapter 35, you
5 make two statements. And this is in the science part
6 of it, so you wrote this, I believe.

7 You say: "It has been the author's
8 experience, limited almost exclusively to striated
9 toolmarks" --

10 A. What page are you on?

11 Q. Page 698.

12 "It has been the author's experience,
13 limited almost exclusively to striated toolmarks in
14 forensic cases, that many of these disagreements, and
15 disagreements between examiners, stem from one
16 examiner ascribing too much significance to a small
17 amount of matching striae and not appreciating that
18 such agreement is achievable in known non-match
19 comparisons."

20 Did you write that?

21 A. I did, indeed.

22 Q. Do you agree?

23 A. Yes.

24 Q. Does the photograph that you looked at relating
25 to the evidence in this case depict a small area of

1 agreement?

2 A. No.

3 Q. And how many areas of agreement does it depict,
4 in your view?

5 A. I don't know. I didn't do any kind of
6 tabulation. I didn't measure anything either.

7 Q. Is there any objective standard for saying this
8 is a small measure of agreement or a large measure of
9 agreement?

10 A. If you are dealing with a striated toolmark and
11 then you use quantitative CMS, there is most
12 certainly a quantitative threshold.

13 Q. Well, how about if you're using the "I'll-know-
14 it-when-I-see-it" approach?

15 A. If you're using straight pattern matching with
16 no quantitation, then there is not.

17 Q. No objective means to determine whether it's a
18 large or a small area of agreement, correct?

19 A. That's right.

20 Q. And then the last thing you say in here -- I
21 just want to verify this as your view. This is --

22 A. The same page?

23 Q. 695.

24 A. I am there.

25 Q. You say: "Research conducted by adherence to

1 the scientific method allows predictions to be made;
2 and, thus, serves as a guide to future situations
3 which, in this specific instance, is the
4 identification of toolmarks.

5 "In contrast, most of the day-to-day
6 measuring and careful observation that occurs in
7 firearm and toolmark sections of crime laboratories
8 is essential to the completion of casework, but is
9 not carried out by using scientific methodology."

10 Do you still believe that to be true?

11 A. Yes.

12 Q. "Firearms and toolmark examiners apply science
13 and scientific method -- methods, procedures, and
14 instruments in a practical way, but most are more
15 skilled in the art of applying those methods and
16 procedures than they are in the basic sciences
17 involved."

18 And you still believe in that statement
19 today?

20 A. Yes. When you simply measure something, you're
21 really not using the scientific method. You're just
22 making a measurement, and that measurement applies to
23 that specific measurement.

24 What I was talking about here is the use of
25 a scientific method to allow theories to be

1 formulated. And the reason that you formulate
2 theories is because you want to predict events or
3 what can happen in similar situations.

4 But the specific individual measurements of
5 land and groove impression width, the diameter of
6 bullets, those are simply straightforward
7 measurements.

8 Q. Okay. And the bottom line is you believe, as
9 you state in your chapter, that currently the
10 interpretation of individualization and
11 identification is subjective in nature?

12 A. What page is that on?

13 Q. That's 694, quoting the AFTE theory of
14 identification.

15 A. Oh, yes.

16 Q. And you still believe that?

17 A. Yes. With the addition that if you do use
18 quantitative consecutive matching striae for the
19 evaluation of striated toolmarks, in my opinion that
20 adds. That adds something beyond just a straight
21 pattern match subjective evaluation.

22 Q. Which was the method followed in this case;
23 that is, the subjective method?

24 A. I believe so.

25 MR. BURT: Okay. That's all I have. Thank

1 you.

2 Your Honor, I would move in at this
3 point --

4 THE COURT: And I don't have Exhibits V or
5 W.

6 MR. BURT: Yes. And I'll provide a copy to
7 the Court in a minute.

8 So I'm moving in at this point Exhibit E,
9 which is the NES report from 2009, the total report.

10 THE COURT: Just E at this point?

11 MR. BURT: No. I -- I was going go through
12 them individually.

13 THE COURT: Well, can we kind of speed
14 things along here?

15 MR. BURT: Sure. Then --

16 THE COURT: Have you checked whether --
17 with Ms. Mott as to whether there's objection?

18 MR. BURT: E through W is what I am going
19 to admit.

20 MS. MOTT: For the purposes of this
21 hearing, Your Honor, I'm not going to object.

22 Mr. Burt has told me that he will provide
23 me with a list of these exhibits as it correlates to
24 the tab numbers on the CD that I was given. And for
25 now that's fine, Your Honor.

1 THE COURT: So E through W are admitted.

2 MR. BURT: Yes, Your Honor. Thank you.

3 THE COURT: Is there any redirect?

4 MS. MOTT: No, Your Honor.

5 THE COURT: All right. May this witness be
6 excused?

7 MR. BURT: Yes.

8 MS. MOTT: Yes, Your Honor.

9 THE COURT: All right. Thank you for your
10 testimony here today, Mr. Murdock.

11 THE WITNESS: Thank you, Your Honor.

12 THE COURT: And yesterday, not just today.
13 So, Mr. Burt, you'll get me Exhibits V and
14 W?

15 MR. BURT: Yes, Your Honor.

16 THE COURT: Thank you.

17 MR. BURT: Did the Court want separate
18 copies of those?

19 Other than the marked exhibits, you
20 wanted --

21 THE COURT: No, I just want to make --
22 well, if you have them, I'll take them.

23 MR. BURT: Sure. These are the originals.
24 And do you want a copy as well?

25 I think I gave your clerk -- which was the

1 other one.

2 KATHARINA BABCOCK, GOVERNMENT'S WITNESS, SWORN

3 DIRECT EXAMINATION

4 BY MS. MOTT:

5 Q. Could you state your name for the record, and
6 spell both your first and last name?

7 A. My name is Katharina Babcock.

8 K-A-T-H-A-R-I-N-A, last name, B-A-B-C-O-C-K.

9 Q. And where are you employed?

10 A. I am employed at the New Mexico Department of
11 Public Safety, Northern Forensic Laboratory.

12 Q. How long have you been employed there?

13 A. I've been employed there for almost 13 years.

14 Q. And have you done the same thing, so to speak,
15 at the lab for those 13 years?

16 A. Yes, I have.

17 Q. And what is that?

18 A. I'm a forensic firearms and toolmark examiner.

19 Q. And previous to that laboratory, did you work
20 anywhere else doing that type of work?

21 A. No, I did not.

22 Q. All right. So when you initially came to the
23 lab, did you have, for example, an initial training
24 period?

25 A. Yes, I did.

1 Q. What did that entail?

2 A. I was hired in 1999 as a firearms and toolmark
3 examiner trainee, and that was late in the year of
4 '99.

5 I began a course immediately. It was
6 through the mail, called the American Institute of
7 Applied Science, in Youngsville, North Carolina. And
8 it was a --

9 THE WITNESS: If you don't mind me
10 referring to my CV, Your Honor?

11 Thank you.

12 MS. MOTT: And I guess, just for the
13 record, is it all right if she refers to the exhibits
14 and information that she has up there?

15 THE COURT: She can refer to material that
16 she has with her at the bench. Of course, Mr. Burt
17 will have an opportunity to review it as well.

18 THE WITNESS: Thank you.

19 A. For three months I did this written coursework,
20 and it was titled "Firearms Identification Course."

21 In March of 2000, I found out I was
22 accepted as one of 10 students in the nation to
23 attend the Bureau of Alcohol, Tobacco, and Firearms
24 National Firearms Examiner Academy, which is a
25 year-long course that was held in Rockville,

1 Maryland, a suburb of DC.

2 BY MS MOTT:

3 Q. And you sat through Dr. -- John Murdock's
4 testimony?

5 A. Yes, I did.

6 Q. For the last day and a half?

7 A. Yes.

8 Q. And you heard him describe that course. Is
9 that correct?

10 A. I heard him describe parts of it, yes.

11 Q. Okay. So it's a year-long training course?

12 A. Yes, it is.

13 Q. With the ATF. And you don't get to go back and
14 forth, you've got to go and stay. Is that right?

15 A. The first four months I spent writing 54
16 papers. And the next four months I spent in
17 Rockville, training each day with the ATF at their
18 laboratories.

19 While I was in Santa Fe at the laboratory,
20 and while I was in Rockville, I covered several
21 different topics, such as standard operating
22 procedures, health and safety, history of black
23 powder as a propellant, evolution of early firearms,
24 modern ammunition evolution and manufacture, firearms
25 identification history, principles, equipment and

1 current developments, microscopy and instrumentation,
2 toolmark examinations, comparisons and
3 identifications, general preliminary examinations of
4 firing - excuse me -- of firearms, test firing for
5 known specimens and operability, bullet examinations
6 and comparisons, to include shot shells, cartridge,
7 cartridge case, shot shells, and fired shot shell
8 examination and comparison, restoration of
9 obliterated markings, which is known as serial number
10 restoration.

11 Q. So let me just interject. I'm sorry.

12 A. Sure.

13 Q. Is that one, for example, a serial number that
14 has been -- or tried to have been ground down off of
15 a weapon to obscure its serial number?

16 A. Yes.

17 Q. Okay. And so all of this was through the ATF
18 training?

19 A. Yes. As well as gunshot residue, terminal
20 ballistics, shot patterns, distance determinations,
21 external laboratory reviews.

22 And we did several tours. While I was at
23 the location in Maryland, I toured approximately 14
24 different firearm manufacturers, as well as an
25 ammunition factory in Luna, Arkansas.

1 And finally, I came back after the four
2 months and remained at my lab for four months doing
3 two publishable research projects.

4 I also worked several mock cases, which I
5 turned in as part of the course requirement.

6 And then I went to ATF headquarters in
7 Washington, DC, and presented my research projects.

8 I did some oral presentations in the
9 courtroom, testimony training while I was there for
10 two weeks, and then I graduated from the National
11 Firearms Examiner Academy.

12 After that, I came back to the lab and I
13 did casework alongside my trainer for several months,
14 and then I was tested and I became a full-fledged
15 firearms examiner.

16 Q. Okay.

17 A. I continued to attend classes, workshops,
18 seminars, keep up with the literature reviews.

19 Q. And this is during the last 13 years -- 12
20 years, actually?

21 A. Yes, ma'am.

22 Q. And now are you also certified by AFTE?

23 A. Yes, I am.

24 Q. And how many, if you know an estimate, of
25 firearms and toolmark examiners are actually

1 certified?

2 A. Well, there are approximately 983 members of
3 AFTE, of which about 90 are certified.

4 Q. So a pretty small percentage of AFTE members
5 are certified?

6 A. Yes. And I should add that I am certified in
7 firearms evidence and examination.

8 Q. One of the areas that they certify in?

9 A. That's correct.

10 Q. And currently, what is your position or title?

11 A. I'm a supervising forensic scientist.

12 Q. And what does that mean? What are your
13 responsibilities?

14 A. I oversee the day-to-day operations in the
15 firearms unit in the crime lab. And I have a primary
16 responsibility of conducting casework.

17 Aside from supervising the other forensic
18 scientists in the firearms unit and doing casework, I
19 also do other things, like ensure quality assurance
20 in the unit. I do case reviews, to include technical
21 and administrative reviews, and/or supplies, and have
22 many other smaller duties. I also train when
23 requested.

24 Q. And you mentioned quality control/quality
25 assurance. And is that part of the laboratory or is

1 that part of a larger accreditation process in the
2 lab?

3 A. We are each responsible for maintaining quality
4 in the lab, especially within what we do every day in
5 our own casework.

6 We have an excellent quality program in
7 place, and we are an accredited laboratory by
8 ASCLD/LAB, which is the American Society of Crime
9 Laboratory Directors/Laboratory Accreditation Board.

10 And we meet the ISO 17025 standard for
11 testing laboratories since 2009.

12 Q. As part of that, are you tested to maintain
13 your accreditation? Is that part of your
14 accreditation?

15 A. Yes. Testing is -- proficiency testing?

16 Q. Yes.

17 A. Is that what you are asking?

18 Q. Yes.

19 A. Yes. I am proficiency tested because of that
20 requirement. And also, it's a requirement for my
21 recertification -- or certification -- to maintain
22 certification.

23 Q. Through AFTE?

24 A. Through AFTE.

25 Q. So how many proficiency tests do you take a

1 year?

2 A. I take a firearms proficiency and a toolmark
3 proficiency, and a serial number restoration
4 proficiency when assigned.

5 Q. And in the time that you've been taking these
6 proficiency tests, have you ever failed a proficiency
7 test?

8 A. I have never failed a test.

9 Q. Now, let me back up a little bit. We were
10 talking about your CV. And could you briefly give us
11 your background of what your education is in?

12 A. I attended the University of New Mexico here in
13 Albuquerque, and I graduated with honors in 1999. I
14 graduated with a bachelor's in criminology and a
15 minor in psychology.

16 Q. And I know you've mentioned the numerous
17 trainings and courses that you have gone through
18 during the last 12 years to stay abreast of all the
19 different changes within the field.

20 You have also presented before, have you
21 not, on firearms and toolmarks?

22 A. Presented to whom?

23 Q. To a variety of groups. I had listed five that
24 you put onto your CV, in terms of your teaching and
25 presentations.

1 A. Okay. Yes. Yes, ma'am. I have presented
2 several times.

3 Q. And it looks like you presented not only to the
4 District Attorney's office, but also to a variety of
5 law enforcement groups, including the ATF?

6 A. Yes. I also teach at schools on my own time.

7 Q. And what do you mean, you teach at schools?

8 A. When there is a school that's interested in
9 forensics, I volunteer my time to teach forensic
10 firearm identification.

11 Q. Oh, very good.

12 Now, you talked a little bit -- going back
13 to your training, were you also trained by John
14 Murdock?

15 A. Yes, I was.

16 Q. And I know there was -- you gave me a whole
17 list of people. Can you just briefly give us some
18 different names that you have been trained by?

19 Because we've talked about a lot of people
20 over the last day and a half, and most of them very
21 prominent in the field.

22 A. I would be happy to.

23 Glen Beach of the ATF. Pete Striupaitis,
24 John Murdock, John Dillon, Al Offringa, Gregory
25 Klees, Jerry Miller, Walt Dandridge, Nancy McCombs,

1 Mike Haag, Beth Gillis, Tim Curtis.

2 And I was trained by Larry Warehime, who
3 hired me, and he has since passed away. He was my
4 primary trainer.

5 Q. Now, over the course of time that you have been
6 with the lab doing firearms and toolmark
7 identification, have you -- can you give me an
8 estimate of how many cases you have examined?

9 A. 635.

10 Q. Okay. Not an estimate. Thank you.

11 And out of those, how many would you say
12 are what we would call high profile?

13 A. What would be high profile?

14 Q. Well, usually high profile means a lot of media
15 attention. And I ask this question because of
16 possible bias that has been mentioned in some of the
17 testimony.

18 A. I have seen some of the cases that I have
19 worked on in the news or the newspaper. I don't
20 really recall many of the specifics, other than one
21 case, only because Court TV was there, and I remember
22 that clearly.

23 Q. And which case was that, do you recall?

24 A. That was the Cody Posey case.

25 Q. So when a case comes in to the laboratory are

1 you told, "Hey, this is a high-profile case"?

2 A. I'm actually not told anything when any case
3 comes into the laboratory.

4 Q. So why don't you explain to us how you come
5 about getting the case. Do you go and pick it up
6 from evidence, or how does that work?

7 A. What occurs is either a law enforcement agency
8 or -- we serve over 100 in the state or District
9 Attorney's office or Public Defender's office.
10 Whomever our client is will bring in evidence.

11 And it can either be brought in physically
12 or through the mail, registered mail.

13 The evidence people take in the case, it's
14 assigned a number. There's an evidence receipt form
15 that is completed by the submitting agency.

16 And after the evidence is taken in, it's
17 placed in a secure vault. And then the evidence
18 folks make a copy of the evidence receipt form and
19 stick it in the firearms box.

20 We have several cases that are constantly
21 pending. And if a case -- once the case comes in via
22 that piece of paper, it's placed in the appropriate
23 binder. And there are a few binders. One is in an
24 IBIS only binder, one is a firearms case binder, one
25 is a serial number restoration and toolmarks binder.

1 The only reason there's a differentiation
2 is for us to know what type of case we are going to
3 be working, so we can prepare adequately for that.

4 Q. When you say what type of case, what do you
5 mean?

6 A. Meaning if it's a serial number case, we need
7 to ensure that we have the proper note forms for that
8 and chemicals ready. And we know we'll be using the
9 fume hood, so we want to make sure nobody else is
10 using that. We only have one in the section.

11 Q. So it's not designated as, this is high
12 profile, this is an aggravated battery, this is --
13 anything like that?

14 A. There would be a designation on the evidence
15 receipt form as to what kind of case it is. But when
16 it goes into the binder, we will normally be notified
17 of the court cases that are coming up via subpoena.

18 So those are our priority, to ensure that
19 court cases are completed in time for court.

20 Another priority in the laboratory is
21 homicide cases. So homicides are priority, not only
22 in firearms, but throughout the lab.

23 Q. Other than that, you really aren't given any
24 information about the case itself?

25 A. It depends. I sometimes am given information.

1 Sometimes I will be in the front office and I will be
2 checking a firearm for safety, which we do each and
3 every time a firearm comes into the lab. And it may
4 be that the detective would like to discuss the case.

5 In that case I listen to the detective, I
6 neither necessarily believe nor disbelieve what I am
7 told. I use it as information.

8 Q. Now as we sat through the last day and a half,
9 there was a lot of discussion about the AFTE theory
10 of identification, SWGGUN standards, ASCLD/LAB
11 standards. Do all of those apply to your laboratory?

12 A. Yes, they do. We have an obligation, as an
13 accredited laboratory, to meet those standards. And
14 we either meet them or exceed them; otherwise, we
15 would not get reaccredited.

16 Q. And as to the AFTE theory of identification,
17 how long has that been practiced at your laboratory
18 and by you?

19 A. Since I have been there.

20 Q. And we mentioned SWGGUN. And are those
21 standards also practiced by you and the laboratory?

22 A. I have to follow my standard operating
23 procedures, but most everything is based on AFTE.

24 SWGGUN is a working group, and we are very
25 familiar with those standards, and I believe either

1 meet or exceed those standards.

2 Q. Now as a supervising forensic scientist, do you
3 have a hand in either adding/deleting to the
4 standards that the laboratory or your section
5 particularly follow?

6 A. I do, and other people do as well. Anyone has
7 the ability to give their input. And we actually
8 have a specific form called a laboratory improvement
9 form or something like that, that we, as employees of
10 the lab, can complete at any time and turn in for
11 review and possible changes.

12 Q. Now, have you ever participated in any
13 validation tests?

14 A. Yes, I have.

15 Q. And what were those?

16 A. I have participated, during my training at the
17 ATF academy, in the 10 work group barrel study.

18 I also am participating in a couple of
19 validation studies at this time.

20 Q. And are you able to tell us what those are?

21 A. One of them is the Miami barrel study, EBIS
22 barrels.

23 And the other study is one I just received
24 recently, and I don't recall details on it. It's
25 still in the envelope.

1 Q. Oh, okay. All right.

2 So I know I had you walk us through how you
3 receive evidence and/or assigned a case.

4 Can you walk us through, once you get that
5 case assigned, and let's say you go to the evidence
6 room and check out evidence, what happens at that
7 point?

8 What are you following? Are you following
9 standards and SOP for the lab at that point?

10 A. Yes, I am.

11 Q. And what do you do?

12 A. Once I am going to work a particular case, I
13 e-mail the evidence custodian, who will then call me
14 when she's ready to turn over the evidence.

15 Once I receive the evidence in my custody
16 and in my possession, I'm responsible for it.

17 So what I do is I either begin working it
18 immediately, or I have several lockers which are
19 secure that have a lock on it that only I know the
20 combination of. And I will place the items in the
21 locker until they are ready to be worked.

22 Q. When you say "ready to be worked," what do you
23 do initially?

24 A. Initially, I take the evidence out of the
25 locker and I place it in my work area. And I will

1 begin by marking everything for identification, sort
2 of as I go along, while at the same time I take
3 photographs of the front and the back of the
4 packaging as received.

5 I take photographs of the items received.
6 And as I am doing this, I'm also taking copious
7 notes.

8 Q. And in fact, did you do that in this case?

9 A. Yes, I did.

10 Q. Once you get the evidence laid out, so to
11 speak, and when you are taking photographs and
12 documenting what you have, for example, in this case,
13 why don't you tell us how many pieces of evidence you
14 received to review and examine. And that would be
15 how many guns and how many casings and so on.

16 A. All right. I received six firearms in this
17 case. I received 209 cartridges in this case, 13
18 cartridge cases, and one bullet, and several smaller
19 fragments that were of unknown origin.

20 Q. Of the six firearms, can you tell us what those
21 were?

22 A. Yes, I can. Would you like me to be specific?

23 Q. Yes, please.

24 A. I received one .38 special caliber Rossi brand
25 M88 five-shot revolver, bearing a serial number

1 W243613.

2 I also received one Glock .45 auto
3 caliber, Model 36 semiautomatic pistol, bearing the
4 serial number DVU763US.

5 I also received one .40 Smith & Wesson
6 caliber, Smith and Wesson brand, Model SW-40VE
7 semiautomatic pistol, bearing the serial number
8 PGB5557.

9 I received one .40 Smith & Wesson caliber,
10 Smith & Wesson brand, Model SW-40VE semiautomatic
11 pistol, bearing the serial number DUM2735.

12 I also received one .40 Smith & Wesson
13 caliber, Highpoint Firearms brand, Model 4095
14 semiautomatic pistol -- sorry, semiautomatic rifle,
15 bearing the serial number H18087.

16 I also received one 9mm Luger caliber,
17 Glock brand, Model 17 semiautomatic pistol, bearing
18 the serial number AK548US.

19 Q. I'm not going ask you what all the cartridges
20 were.

21 But briefly explain to us, what's the
22 difference between a cartridge and a casing?

23 A. I have a demonstrative aid. Would you like me
24 to use it?

25 Q. Oh, certainly.

1 Can you please do that so everybody can see
2 it?

3 A. That is a cartridge. It is not a real one,
4 it's plastic.

5 What this is, is a cartridge is a single
6 unit of ammunition which is comprised by the bullet,
7 the cartridge case, and the primer, which is a shock
8 sensitive material, and then there's gunpowder
9 inside. That is a cartridge.

10 Q. So the whole piece is a cartridge?

11 A. Yes, it is.

12 Q. Okay. So once the bullet is ejected by
13 firing --

14 A. Yes.

15 Q. -- what are you left with?

16 A. You're left with a cartridge case.

17 Q. So you have 13 of those in this case. Is that
18 right?

19 A. Yes, I did.

20 Q. All right. And then you said you had one
21 bullet and several unknown fragments.

22 A. Yes.

23 Q. So at this point you have counted, you have
24 laid it all out, you have taken pictures, you have
25 documented.

1 So do you just pick whichever gun that you
2 want to look at, or whichever ammunition you want to
3 look at? Or in this case did it come in at different
4 times?

5 A. I received some items at different times.

6 Q. Okay.

7 A. So in this case I received quite a bit of
8 evidence, and it took me a long time to work through
9 all the evidence.

10 So as I'm working through the evidence,
11 that's when I'm documenting and taking pictures and
12 placing my identifiers on each and every item. That
13 includes each and every one of those 200-plus
14 cartridges.

15 MS. MOTT: And so -- and just for
16 reference -- I'm sorry, Your Honor, the CV that we
17 were talking about is Exhibit 21 in Book 2, Binder 2.

18 And now I'm going to refer to Exhibit 14,
19 which is also in Binder 2. And so what I'm holding
20 in my hands, I will walk over and show you, is 109
21 pages.

22 BY MS. MOTT:

23 Q. And do you recognize that without the little
24 stickies?

25 A. I do recognize it.

1 Q. And what is it?

2 A. Those are my case notes.

3 Q. And so is this a documentation of all the work
4 that you did in this case?

5 A. Yes, it is.

6 Q. Or at least a good summary?

7 A. Yes.

8 Q. For example, when you walk into the lab do you
9 write down that "I took off my coat and turned on the
10 light"?

11 A. No, I do not.

12 Q. Okay. I just want to make sure.

13 So what you document in this, is this what
14 you actually did as a firearms and toolmark examiner?

15 A. Yes.

16 Q. Okay. Likewise within this, do you write down,
17 "I followed the laboratory SOP Number G14" -- and I'm
18 making that up. I don't know what the lab SOP number
19 is.

20 A. I do not write that down.

21 Q. But you write the steps that you take?

22 A. Yes, I do.

23 Q. And you write what you are doing?

24 A. Yes, ma'am.

25 Q. And whether or not you have taken a photograph?

1 A. Yes, ma'am.

2 Q. The number or description of the item?

3 A. Yes.

4 Q. And then what steps you take in examining
5 those?

6 A. Yes.

7 Q. Okay. For example, on page 13 of your case
8 notes -- and it's dated 4-11-11 -- you note that you
9 inadvertently did not take a photograph of Item 24.
10 And then it appears right below that, you note on
11 4-12, "I took a photograph of 24."

12 So that is what we're talking about, in
13 terms of what your documentation is?

14 A. Yes, ma'am.

15 Q. Okay. Can you -- I guess let's just -- let's
16 narrow it down. Because like you said, we have a lot
17 of information and a lot of evidence. But let's
18 narrow it down to what we're really talking about
19 here, and that's the comparison of the two .40
20 calibers with the casings, the three casings.

21 And then obviously you did look at the
22 bullet and fragments that were found in the burned
23 camper. And I say that, because you now know they
24 were found in the burned camper.

25 When you received those items, the burnt

1 items, did you know how they had been burned?

2 A. I did not know the details on how they had been
3 burned.

4 Q. You just knew they were damaged?

5 A. Well, I knew that there was a fire, and I knew
6 that there was a homicide. I didn't know details,
7 though.

8 Q. Okay. So when you removed those from the
9 packaging and saw the damage, what did you do?

10 A. I examined them thoroughly and took notes and
11 photographs of those items.

12 Q. And did you do anything else at that point?

13 A. Are we just specifically talking about the
14 bullet --

15 Q. Actually --

16 A. -- and the fragments at this time?

17 Q. We can talk about that and/or the casings.

18 But let's talk about the fragments, since
19 you brought it up.

20 A. All right. We had Item G3. Did you want me to
21 answer?

22 Q. Yes, please.

23 A. Okay. Item G3, which I determined to be a .40
24 nominal caliber bullet. I was able to determine that
25 by measuring the base of the bullet.

1 I knew it was a bullet because it had lands
2 and grooves and it looked like a bullet.

3 Q. And I'm putting the photograph that you took of
4 G3 up.

5 And you said you measured the base?

6 A. Yes, I did.

7 Q. And can you just point to what part you
8 measured?

9 A. Yes, I can.

10 Q. And then it will actually -- it will mark on
11 the screen.

12 A. Oh, how do I do that?

13 Q. Just push on the screen where you marked it or
14 you measured it.

15 A. This is a three-dimensional object, and what
16 I'm looking at now is a picture, so it doesn't
17 completely represent what actually occurs.

18 But if I may use this (indicating) that
19 would be better.

20 Q. Very good.

21 A. So if this were item G3, I take calipers and I
22 measure the base of the bullet. And I'm able to
23 determine, in thousandths of an inch, what that
24 bullet measures.

25 And at that time I was able to determine

1 that it measured .403 thousandths of an inch. This
2 is consistent with a .40 nominal caliber bullet.

3 Q. Are bullets, in terms of size and even weight,
4 standard -- pretty much standard throughout? So if
5 you have a .22 it's going to be one size?

6 I mean maybe I'm not asking that correctly.
7 But...

8 A. I think that's a correct way to answer that --
9 to ask that, rather.

10 Q. So that's how you are able to determine, if I
11 have a measurement, this matches with a .40-caliber
12 because it is pretty much standard?

13 A. There are definitely variations. But for
14 example, a 9mm bullet should measure .355. A
15 .40-caliber bullet should measure .40.

16 Of course there's always -- we are talking
17 thousandths of an inch. So if it was .356 or .354,
18 that's okay. It's an approximate measurement.

19 Q. So after you measured G3, did you move on to
20 G4, or what did you do?

21 A. Yes, I did.

22 Q. Were you also able to measure G4?

23 A. No, I was not able to do so. I did examine G4,
24 and I was able to determine that it was a gray in
25 color piece of metal, and there did appear to be

1 copper, or copper color, visible on that item.

2 However, that item was unsuitable for any
3 kind of comparison, and there weren't any lands and
4 grooves in it. I don't know where that item came
5 from.

6 Q. Okay.

7 So when you say it's unsuitable, what --
8 what method are you using to determine it's
9 unsuitable?

10 A. Well, I'm using one of the range of conclusions
11 that Murdock spoke of.

12 Q. So through the AFTE theory?

13 A. Through AFTE, yes.

14 Q. AFTE identification? Okay.

15 So what item did you then look at next?

16 A. I looked at Item G8.

17 Q. And on the picture, it appears we have two
18 items. Was that labeled correctly, in terms of what
19 you received as evidence?

20 A. That was -- what I'm looking at right now is a
21 picture of G8, as received. That is me opening the
22 box, writing the number and letter G8 on the lid, and
23 taking a picture.

24 When I lifted up the cotton that's
25 underneath those two items, there were several tiny

1 fragments that I also saw and are subsequently
2 photographed.

3 Q. And on -- this is page 78. And I'm going to
4 put on page 81.

5 Is that what you're talking about?

6 A. Yes, ma'am.

7 Q. Were you able to determine anything about
8 these?

9 A. As with Item G4, I was only able to
10 determine -- and I don't believe I mentioned this for
11 Item G4. I weighed -- I weighed Item G4, and I also
12 weighed Item G8.

13 And I was unable to use it for any
14 comparison purposes. And I also do not know where
15 that item came from or what it is, other than those
16 items are small fragments, and some of them had
17 copper visible. Actually, you can sort of see that
18 displayed on Item G8, the largest fragment.

19 And the way I'm looking at it, it's the
20 most left large fragment. There's a copper color
21 visible on that.

22 Q. And so did you use the AFTE theory of
23 identification here to determine a conclusion --

24 THE COURT: I'm sorry, I can't hear you.

25 MS. MOTT: I'm sorry. I'll scoot over.

1 BY MS MOTT:

2 Q. Did you -- I guess let me just ask this
3 question.

4 Throughout your evaluation, did you apply
5 the AFTE theory of identification in determining
6 whether an item of evidence was either suitable or
7 unsuitable for comparison or examination?

8 A. In this case, when I said it was unsuitable,
9 I'm using the AFTE range of conclusions. One of
10 those conclusions is unsuitable, and that is what
11 Item G8 was in this case.

12 Q. Okay. Thank you.

13 And just for reference purposes, there is
14 another little picture here of G3.

15 Is that another picture that you took?

16 A. Yes, it is.

17 Q. It gives a little bit better dimension?

18 A. Yes.

19 Q. And we are still on page 81.

20 And again, G3. Is this another picture
21 that you took?

22 A. Yes, it is. That's how I received it.

23 Q. And then G4, which we also talked about?

24 A. Yes.

25 Q. So what other piece of evidence did you look at

1 next?

2 A. Item G12 is obviously burned and charred. It
3 did not have any lands and grooves. I did weigh it,
4 but it was unsuitable.

5 Q. Now, you have talked about weighing items. And
6 there again, is the weight of specific bullets, is
7 that pretty standard throughout?

8 A. There are different bullet weights for
9 different calibers.

10 Q. Okay.

11 A. And different bullet weights within those
12 calibers.

13 Q. So if you were able to receive a weight on
14 this, would it help you make an identification of
15 what it was?

16 A. No, it would not.

17 Q. Okay.

18 A. Based on general appearance, that there were no
19 lands and grooves.

20 Q. And I know we discussed that as well with
21 Mr. Murdock, the various types of lands and grooves
22 and what you look at when you're making an
23 examination.

24 Is that what you're talking about?

25 A. Yes.

1 Q. And what was the next item of evidence that you
2 looked at?

3 A. Item G14. That was also another cylindrical
4 piece of metal, but it was unsuitable.

5 Q. And correct me if I'm wrong. But these all
6 appear to be heavily fire damaged.

7 A. Yes, ma'am.

8 Q. Is that what, in part, made it unsuitable?

9 A. Yes.

10 Q. And what was the next piece of evidence that
11 you looked at?

12 A. Would you like to go chronologically?

13 Q. Actually I want to focus, if we can, on the
14 burned items. And then, obviously, the two .40
15 calibers.

16 A. All right. I looked at Item G7.

17 Q. And what is that?

18 A. Item G7 is a fired Blazer .40 S&W caliber
19 cartridge case.

20 Q. And was that how you received that piece of
21 evidence?

22 A. Yes.

23 Q. And then what did you look at?

24 A. Then I looked at Item G11.

25 Q. And let me just stop for a minute. I'm sorry.

1 On G7, you said it was a Blazer?

2 A. Yes.

3 Q. And what was the rest of the description?

4 A. .40 Smith & Wesson caliber, fired cartridge
5 case.

6 Q. Were you able to determine that by just
7 visually looking at it?

8 A. When I received that item, I actually could not
9 determine what the information was on the head stamp.

10 And the head stamp is simply information
11 that's put by the ammunition manufacturer onto --
12 right here (indicating), this area around the primer,
13 on the head of the cartridge case.

14 Some people call this the base. I'm going
15 to call it the head of the cartridge case.

16 That was burned and had a charred material
17 on it, and I couldn't read it when I received it.

18 Q. And so then you looked at G11?

19 A. Yes.

20 Q. Was that in the same condition as G7?

21 A. I could, upon receipt of this item, read what
22 the head stamp said, but it was also heavily charred.

23 Q. I think I have a little bit better picture
24 here. Is that what you received?

25 A. Actually, that photograph represents after I

1 cleaned it.

2 Q. All right. And we'll talk about that in just a
3 second.

4 And then what did you look at?

5 A. Item G13.

6 Q. And again, was that able to be identified at
7 that point?

8 A. When I received that item, I was able to
9 determine that the head stamp said, "Blazer .40 S&W."
10 It was also charred.

11 Q. Is that what you could see?

12 A. Yes.

13 Q. Based on your examination of these three
14 casings -- and you had brought up that there are
15 pictures in here that say "after cleaned."

16 Did you at that time try to clean, or what
17 did you do?

18 A. Yes, I did try to clean up each one, one at a
19 time.

20 Q. And what process did you use to do that?

21 A. For the beginning of this process I simply used
22 soap and water. I tried -- we typically use acetone
23 to remove any primer annulus that's on the head of
24 the cartridge case in this area, so I rubbed it with
25 acetone.

1 I also used soap and water and dried it
2 off, that worked somewhat. And I used a solvent
3 called Hoppe's, H-O-P-P-E, apostrophe S.

4 Q. And is that something that you typically use in
5 the laboratory?

6 A. We use Hoppe's frequently, yes.

7 Q. What's the purpose of Hoppe's, other than
8 cleaning?

9 A. Many items come into the lab that need to be
10 cleaned, to include bullets that might have been in a
11 body, which we're not going to use Hoppe's on.

12 But guns that have been -- that come in
13 very dirty, and it's important to make things cleaner
14 than just having junk all over them.

15 Cartridge cases come in with mud on them
16 sometimes or dirt inside. So depending on what is
17 there depends on what is used. And I'm sorry if that
18 didn't answer your question directly.

19 Q. So are you trying to get these pieces of
20 evidence basically into the best possible shape to
21 examine them?

22 A. Yes, I am.

23 Q. So in this case you just explained that you
24 cleaned all three of these casings?

25 A. I did.

1 Q. And was that a one-time shot and you were done?

2 A. No.

3 Q. How long would you say it took you to clean
4 these casings?

5 A. Many, many, many hours.

6 Q. Okay. And so was that a process that you would
7 try one day and come back the next day? I mean
8 explain that to us, what you did.

9 A. I used this cleaning agent to clean the
10 cartridge cases. And shortly after scrubbing with a
11 soft-bristle brush, like a toothbrush, I would rinse
12 the item and dry it off and look at my progress to
13 determine whether or not the cartridge case was
14 becoming more clean.

15 Q. And let me ask you a quick question about the
16 brush.

17 Is that something that is normally used in
18 the laboratory?

19 A. Since I have been at the laboratory in 1999, we
20 have always used toothbrushes.

21 Q. Is that something that will not damage the
22 piece of evidence or -- just asking.

23 A. They're soft-bristled toothbrushes, literally
24 toothbrushes. And I'm looking at a metal object and
25 I'm scrubbing it with a soft-bristle brush, so this

1 brush is not damaging that metal in any way.

2 Q. Okay. So after you cleaned all three of these
3 casings, were you able to determine what G7 and G11
4 were?

5 A. Yes, I was.

6 Q. And what were those?

7 A. They were Blazer .40 S&W caliber fired
8 cartridge cases.

9 Q. Now, let me turn to the two .40-caliber
10 weapons.

11 Did you receive both of those at the same
12 time?

13 A. I can check that.

14 Q. Okay.

15 A. I'm just referring to the chain of custody.

16 I received both of those items on
17 February 21st, 2011, at 8:50 a.m.

18 Q. And when you received those weapons, what
19 condition were they in?

20 A. Could you be more specific with your question?

21 Q. Well, were they burned?

22 A. No, they weren't.

23 Q. Okay. Were they dirty?

24 A. Not really excessively dirty.

25 Q. So were they in a normal condition that you

1 would expect to see a firearm?

2 A. I would consider them in good condition.

3 Q. Okay. And once you received those firearms,
4 did you go through the same process that we just
5 talked about, getting them out of evidence, taking
6 pictures, documenting?

7 A. Yes.

8 Q. And I believe at one point in your case notes
9 you discuss taking apart, or at least looking down
10 the slide of one of those .40 calibers and seeing --
11 seeing something in there you didn't expect to see.
12 Is that right?

13 A. That's correct.

14 Q. And what was that? And I'm looking at page 13
15 of your notes on the bottom, 4-12-11.

16 A. Yes.

17 "I field stripped the firearm so that I
18 could examine the breech."

19 Q. Before you go any further, I know I asked you a
20 question.

21 A. Yes.

22 Q. Before you go any further, can you explain to
23 us what field stripping a firearm to examine the
24 breech is?

25 A. Yes.

1 Q. Okay.

2 A. Field stripping the firearm is taking the very
3 basic parts of the gun and disassembling it.

4 And when I say disassembling it, removing
5 the slide, and that -- there are a couple of other
6 parts.

7 So if I were to take the whole entire gun
8 apart, I'm not sure how many pieces there would be.
9 There would be a lot.

10 When you field strip, it's a very basic,
11 basic. It's the most basic disassembly that you can
12 do.

13 Q. Okay. So let me put a picture of 1B 22 up.

14 And you said you disassembled the slide.
15 What portion of that is the slide?

16 A. That would be the upper right silver area that
17 is recessed backward, that looks more trapezoid-ish
18 or rectangular than the other part, which is the
19 barrel sticking out.

20 Q. Does it look like it has little markings on the
21 far right side?

22 A. Yes.

23 Q. That's what we're talking about?

24 A. That's where one would grip the slide,
25 typically.

1 Q. Very good.

2 So when you did this, what did you see, or
3 believe that you saw, inside that weapon?

4 A. I noticed on the under portion of the slide, it
5 had what appeared to be blood on it.

6 Q. So as in this case, and any other case that you
7 would receive a weapon that you saw what appeared to
8 be blood, what did you do?

9 A. I stopped immediately what I was doing and I
10 notified the supervising forensic scientist.

11 Excuse me. I actually photographed the
12 area first, and then I spoke with forensic scientist
13 Roslynd Archuleta.

14 Q. And is she in your department?

15 A. She's in the DNA unit.

16 Q. And was that, then, examined by Roslynd?

17 A. It was examined by Roslynd on April 12, the
18 same day that I saw what I believed to be blood.

19 Q. And after she examined that, did she give it
20 back to you?

21 A. Actually, I was there when she swabbed the
22 item. It remained in my custody, so it was never
23 taken away.

24 Q. And obviously, that's something you document as
25 well, if it leaves your custody?

1 A. Yes.

2 Q. Okay. Now I am looking at page 14 of your
3 notes, where we just discussed the swabbing of the
4 firearm.

5 And then it appears you moved down a little
6 bit further, and you're discussing talking to an
7 Agent Matthews about ammunition?

8 A. Yes.

9 Q. What was that about?

10 A. May I add one thing about the cleaning?

11 Q. Oh, absolutely.

12 A. I did use WD-40 as well. I failed to mention
13 that earlier.

14 Back to your question.

15 I phoned Agent Matthews who was, I believe
16 one of the case agents, if not the main one on the
17 case, to ask him permission to use any evidence
18 ammunition that was submitted in the case for test
19 firing purposes.

20 Q. And I believe Mr. Murdock discussed test firing
21 and why that's important for examination purposes.

22 And I believe he also testified about it's
23 important to use the same type of ammunition.

24 Is that what you were doing?

25 A. I always attempt to use the same or similar

1 ammunition, and that's what I was doing when I phoned
2 Agent Matthews.

3 Q. Why is that important, to use the same type of
4 ammunition?

5 A. It's important to use the same kind of
6 ammunition because the relative hardness is more
7 similar within the same manufacturer.

8 And it's good to reproduce or to shoot the
9 same type of ammunition, because then you're
10 reproducing, to the best of your ability, what has
11 previously occurred.

12 Q. And so when you say the same type of hardness,
13 what are you talking about on your demonstrative?

14 A. What I'm talking about is this area right here
15 (indicating), which is the primer, is relatively a
16 soft metal.

17 So this can be -- I should add from the
18 original question -- that there are different types
19 of primers. There's nickel primer, copper primers,
20 brass primers, and I want to have the same kind of
21 primer.

22 That's more -- that's very important, to
23 try to have the same type of primer composition.

24 Q. As your evidence?

25 A. As the evidence.

1 Q. Okay. So did you not have any Blazer
2 ammunition at the laboratory?

3 A. I did not.

4 Q. So did you receive his permission to do so?

5 A. I did receive permission.

6 Q. And did you test fire this gun?

7 A. I did test fire this gun.

8 Q. Pursuant to your laboratory protocol and
9 operating procedure, how many times do you test fire?

10 A. Typically four times. If more tests are
11 necessary, then there's leeway in shooting more
12 tests.

13 Q. And is there a specific reason for that number?

14 A. Four is a good number, because it allows the
15 examiner to intercompare those four cartridge cases
16 and see how they are reproducing.

17 Q. Now, I know Mr. Murdock talked about how guns
18 can become seasoned.

19 A. Yes.

20 Q. After having been fired numerous times?

21 A. Yes.

22 Q. Did you know, or were you aware whether or not
23 this gun had been seasoned?

24 A. I did not know that.

25 Q. And so was that another reason that it was

1 important to test fire several times?

2 A. We have a policy, that I believe verbatim says,
3 typically four test fires will be obtained.

4 Q. Did you take pictures of the fires?

5 A. Of the test fires?

6 Q. Yes, ma'am.

7 A. Let me refer to my notes, please.

8 There are pictures of the test fires when
9 comparisons were conducted.

10 Q. Now -- go ahead. I'm sorry.

11 A. That's okay.

12 Since I did use four pieces of ammunition
13 that were originally evidence, those actually were
14 photographed prior to being fired.

15 Q. Ah, okay. Very good.

16 And when you do that comparison of those
17 four test fires, to see if there's any differences or
18 changes, what do you use to do that comparison?

19 A. I use a comparison microscope.

20 Q. And I know we saw a picture on a PowerPoint of
21 a comparison microscope. Is that the type of
22 microscope that you use?

23 A. I don't know what type of microscope that was
24 in the photograph in the PowerPoint. I use a
25 high-powered -- or, rather, a very high-quality Leica

1 DMC comparison microscope.

2 Q. I believe Mr. Murdock had testified it was a
3 Leica. I don't know the brand or the number to it.
4 So...

5 A. Leica is the brand, and DMC is the model.

6 Q. And I misspoke, the model. I don't know the
7 model. So...

8 THE COURT: We'll take our afternoon break
9 at this time.

10 Let me ask about a timetable. We were --
11 we had talked about maybe taking up some jury -- the
12 jury questionnaire issue.

13 Do you want to do that after the break?

14 Do you want to come back and continue with
15 this witness for a while?

16 MS. MOTT: That's up to the Court. How
17 long would you like to allot for that?

18 I mean we can stop at any point,
19 Your Honor, since we are coming back tomorrow, and
20 discuss the jury information questionnaires.

21 MR. BURT: We would like to continue to
22 accommodate Mr. Warbel, so he could get out of here
23 tonight. So it might make sense to do it after the
24 break, if that's agreeable, so he has some chance of
25 making his flight.

1 THE COURT: And your flight is?

2 MR. WARBEL: It's first thing in the
3 morning, Judge.

4 THE COURT: Okay. Well, why don't -- let's
5 see. It is a little after 3:00. Why don't we take
6 up that jury issue after the break.

7 I don't know how long it will take. Maybe
8 we can resume with this witness after that.

9 And again today, we'll go to about 4:30.

10 All right? Thank you.

11 MS. MOTT: Thank you.

12 MR. WARBEL: Thank you, Your Honor.

13 THE COURT: Thank you.

14 We will be in recess for about 15 minutes.

15 (A recess was taken from 3:02 p.m. to 3:30
16 p.m.)

17 THE COURT: Please be seated.

18 All right. We're back on the record in USA
19 versus McCluskey.

20 And at this time we will take up the jury
21 questionnaire issues. And -- all right.

22 You know, I've reviewed all the material,
23 and I have a few questions. I don't know if there's
24 anything in particular that you care to address
25 before I go to my questions, Mr. Warbel, Mr. Burt?

1 MR. WARBEL: Judge, you know, I don't want
2 to -- unless you -- that's where your questions go or
3 Ms. Duncan throws the first punch. I'm not
4 necessarily hoping that we stand here and go
5 question-by-question through the list today.

6 But just a couple of things I'd like to
7 point out. And I -- for the most part, we've covered
8 all of this stuff in the briefs, but I think it is
9 important that we stress that this is your
10 discretion, that you have such broad discretion here,
11 in that very few questions are required anywhere in
12 this process, Judge.

13 And right now we are talking about the
14 first step of a -- of a process. And we're talking
15 about a questionnaire that jurors are going to be
16 filling out in their homes unobstructed, you know,
17 unaware of the facts of this case, which is good,
18 because we're going to get kind of an open view of
19 their feelings.

20 But it can be problematic if we get into
21 that line. As you see from the government's
22 briefings, our objections to case-specific questions
23 we object to them in general, but especially at this
24 questionnaire stage, because they just haven't been
25 instructed on what their -- what law they must follow

1 through this process.

2 And just as a general concept, Judge, we --
3 the government urges you to go -- shorter is better
4 at this stage. I think we're putting an undue burden
5 on the jurors with these questionnaires in general.

6 I -- admittedly, we all have an interest in
7 learning more about these jurors that we're going to
8 be questioning, but I think that we have to remember
9 how much time it would take them to fill out a
10 136-question questionnaire covering such topics as
11 the death penalty and going into their religion.

12 And we would ask that you keep that in
13 mind, because I think it -- it has a -- a very real
14 possibility to have a negative effect upon the
15 parties and upon the Court if we send out a
16 questionnaire that becomes so burdensome to the
17 jurors.

18 And second is, as I said, this is a
19 process, Judge. And as we -- as we even learned last
20 year in this district, in Judge Brack's courtroom in
21 Lujan, the questionnaire in that case was 125
22 questions long, I think. And yet we were still
23 spending as much as an hour questioning each juror.
24 And we've agreed to a process here where we hope
25 you'll impose strict 15-minute time limits on the

1 questioning.

2 But even that, Judge, we're talking about
3 questioning each juror for an additional 30 minutes
4 above and beyond whatever they get in the
5 questionnaire. And therefore, you know, I think it's
6 fair to keep this questionnaire briefer.

7 And admittedly, the government's
8 questionnaire is, I think, 86 questions. I think we
9 prepared that originally with an intent of hopefully
10 reaching an agreement on the questionnaire. And we
11 tried, but just couldn't do that. So we ended up
12 submitting separate questionnaires.

13 But as I look back it today, Judge, if I
14 could, I would even cut another 10 or 20 questions
15 from the government's questionnaire.

16 So the bottom line is, this is only part of
17 the process. No question is required at this stage.
18 And I think, especially at this stage, case-specific
19 questions are dangerous. And we would ask you to
20 keep that in mind throughout the process.

21 And beyond that, Judge, I think we're just
22 open for your questions on how you want to do this.

23 THE COURT: All right.

24 Do you have any preliminary comments?

25 MS. DUNCAN: Yes, Your Honor. I'll

1 approach, since I'm sort of a soft talker.

2 I guess I'll respond to what Mr. Warbel has
3 said.

4 First of all, our questionnaire is not
5 unduly long. It's actually shorter than what was
6 used in Lujan by a number of questions.

7 Secondly, it is, given the complexity of
8 the issues and the severity of the punishment that's
9 being sought in this case, it's critical that the
10 parties and the Court have as much information as
11 possible about the people who will be judging this
12 matter. And the questionnaires are intended to get
13 some preliminary information from the juror pool
14 about those critical issues.

15 And in this case, it's just more
16 information is better than less.

17 And the jury questionnaire, sure, it is
18 going to take the jurors a bit of time to answer
19 these questions. But this is a serious case that is
20 going to put a burden on those jurors as they fairly
21 consider the charges against Mr. McCluskey and the
22 penalty, if any, if we get to that stage. And so I
23 think the questionnaire we pose is not unduly
24 burdensome.

25 On the issue of case-specific questions,

1 you know, Your Honor, the question is, can these
2 people be fair and impartial in this case, not in
3 some abstract case. And the questions we have
4 included in our questionnaire are intended to find
5 out if they can, in fact, be fair and impartial to
6 Mr. McCluskey and to the government.

7 There are certain factors that are likely
8 to evoke emotional responses in people or about which
9 people are likely to have bias.

10 And a particular area is aggravating
11 circumstances. There are people who may be able to
12 tell the Court, I can be fair and impartial, or I can
13 consider a life sentence without the possibility of
14 parole in a generic death penalty case, but that same
15 person could not consider a life sentence in a case
16 where more than one person is alleged to have been
17 killed or there's a child.

18 And I direct the Court's attention to US
19 versus Johnson. And in agreeing to allow the lawyers
20 to ask case-specific questions the judge in that case
21 noted his experience in a related prosecution, where
22 several jurors did exactly that. Yes, Your Honor, I
23 can be fair and impartial, I can consider a life
24 sentence.

25 But when they learned that some of the

1 victims in that case were children, they said
2 absolutely not. The death penalty is the only
3 verdict that I would consider.

4 And the judge in Johnson, therefore, found
5 that case-specific questioning early on in the
6 process was important to ferret out those sorts of
7 jurors.

8 And as Your Honor knows, the case law
9 surrounding the death penalty clearly states that no
10 matter what the aggravating circumstances, no matter
11 how heinous they may be, no matter how many they may
12 be, a juror must be able to fairly consider the
13 mitigating evidence.

14 So these case-specific questions are simply
15 intended to determine which jurors would have
16 difficulty in considering a life sentence or, you
17 know, a death sentence given some of the allegations
18 in this case.

19 And as the judge in Johnson noted, there's
20 a difference between asking case-specific questions
21 intended to determine whether a juror has biases that
22 would impact their ability to weigh a death sentence
23 versus a life sentence without parole, and cases --
24 or questions that ask them to stake out their
25 position.

1 If you knew that, you know, A, B, and C,
2 would you vote for life? Would you vote for death?

3 And in crafting our questionnaire, we were
4 very careful to avoid those stakeout questions and,
5 instead, to ask the jurors, could you fairly
6 consider, or knowing this fact, would you have
7 difficulty. And those are questions that then we can
8 follow up in voir dire.

9 In its filing, the government relies very
10 heavily on the US versus McVeigh case by the
11 10th Circuit. And I just would like to point out to
12 the Court that the McVeigh case doesn't tell the
13 Court what you can do. It -- the question there is,
14 you know, did the Morgan decision require the
15 District Court to ask the questions at issue?

16 And the 10th Circuit held it was not
17 required to do so. But the issue wasn't whether the
18 District Court was permitted to ask those questions,
19 and it's clear under Morgan and the cases like it,
20 that the Court, of course, is permitted to ask the
21 questions that it thinks is necessary to determine
22 whether jurors can be fair and impartial.

23 And in evaluating McVeigh, I just want to
24 draw the Court's attention to the United States
25 versus Fell, which we cited in our submission to the

1 Court, and the -- the Court there wrote when
2 considering these cases, meaning cases like McVeigh
3 or cases that held that a Court was not required to
4 ask a specific question, "it is important to recall
5 that appellate courts usually address whether a trial
6 court was required to ask a particular question in
7 voir dire. This means that appellate decisions must
8 be carefully interpreted. Generally, when an
9 appellate Court holds that it was not reversible
10 error to fail to ask a question, the appellate Court
11 is not holding that a trial Court may never ask such
12 questions."

13 And so we agree with the government, that
14 the questioning -- the scope of questioning in this
15 case is very much within the discretion of this
16 Court. And we would ask the Court to follow the
17 well-reasoned opinion in Johnson, which recognized
18 the utility and the necessity of case-specific
19 questions as well as the myriad other Federal
20 District Courts that, in evaluating their own cases
21 and trying to figure out how to ensure a fair and
22 impartial jury, have integrated case-specific
23 questioning into their questionnaires and into their
24 voir dire.

25 And included in that class would be Judge

1 Brack, who did permit case-specific questions in the
2 jury questionnaire, which helped the government and
3 the defense to identify jurors with impermissible
4 bias.

5 And finally I would note, Your Honor, that
6 despite its stated opposition to any sort of
7 case-specific questioning, that in attempting to
8 educate the Court about which jurors can or cannot be
9 excluded, the government is relying on cases in which
10 there was case-specific questioning.

11 There was the Flores case, where the
12 question, I believe, was whether a juror could fairly
13 consider a death sentence where the victim was
14 involved in drug dealing.

15 And that juror said that he couldn't, and
16 so he was excused for cause. And that was the
17 allegations in that case.

18 In another case cited by the government the
19 question was whether the juror could consider a death
20 sentence where alcohol was involved, and the juror
21 said no. And that, again, was a case-specific
22 question, because one of the mitigating factors in
23 that case was the defendant's alcoholism.

24 I think that there are some issues -- I
25 think that there are some general categories of

1 questions to which the government is objecting other
2 than case-specific.

3 And I don't know if you want me to address
4 those general categories or for the Court to ask us
5 questions which may pertain to those categories. So
6 we will take the Court's direction on that issue.

7 THE COURT: Well, why don't we go to some
8 of the questions, and then if there's anything else
9 you want to address you can do so, because I do have
10 some questions. But before I even get to the
11 questionnaires that you-all have proposed, I think --
12 I think we sent you the ability to serve
13 questionnaire that the jury division would send out
14 initially. And I just wanted to get your input
15 specifically on the time frames that we put in there.
16 I don't know if you-all have any thoughts on those
17 time frames.

18 MS. DUNCAN: Your Honor, from the
19 perspective of defense, we -- we think that the Court
20 has accurately captured the time frames for the
21 different stages of the trial. I mean, I think you
22 have set aside three weeks for jury selection. And
23 of course that could take more time than three weeks
24 or it could take less. But I think that that's a
25 good estimate, particularly given the experience --

1 the recent experience in this district in Lujan. So
2 we have -- we're aware -- we have no problem with the
3 ability to serve questionnaire that was circulated to
4 the Court.

5 MR. WARBEL: Well, generally, Judge, I
6 think we would say, just to be safe, the trial could
7 begin as early as late March, rather than saying
8 early April, just in case jury selection goes less
9 than three or four weeks and you want to roll right
10 into trial, which is what the government would
11 recommend.

12 Also perhaps, Judge, we could say
13 concluding as late as July 2013, rather than
14 concluding in July 2013. But that is also just a
15 minor, minor point.

16 And then finally, Judge, the marshals
17 approached us and asked that we -- we follow a daily
18 schedule of 8:30 to 4:30. And I don't know if they
19 brought that up with you yet or not. Apparently
20 that's for transport purposes, in trying to beat rush
21 hour on both sides.

22 THE COURT: Yes, that was brought to my
23 attention. And I thought maybe we could start -- you
24 know, 8:30 might be tough. I think 8:45 is more
25 realistic, and I think what we probably have to do

1 is, in order to break at 4:30, go with the hour and
2 15 minute lunch break. And I'm looking at Monday
3 through Thursday, so hopefully that will be something
4 that the jury -- I'm more concerned with the -- no
5 offense, but I'm more concerned about the jury being
6 able to get something to eat and get a little fresh
7 air. I think all the rest of us can soldier through
8 it. So I am thinking we'll keep it at 8:45, but end
9 at 4:30, with the idea that we'll have a slightly
10 shorter lunch break.

11 Mr. Burt?

12 MR. BURT: I have one question for the
13 Court that just occurred to me, which is, given the
14 fact that Mr. McCluskey is in Santa Fe, is there any
15 possibility we could try the case up there, to kind
16 of ease the burden of having him wake up at 4:00 or
17 5:00 in the morning every morning and getting here,
18 and in terms of transportation?

19 THE COURT: Well, if it's any consolation,
20 I'm going to be in the same boat.

21 MR. BURT: No, I know that. I realized
22 that, and that's why it occurred to me, is that if
23 there were some physical way to do that, it would be
24 less of a --

25 THE COURT: There isn't.

1 MR. BURT: Okay.

2 THE COURT: There's one courtroom in the
3 Santa Fe courthouse, and the other judge who's there,
4 it's just not possible.

5 MR. BURT: Okay. Thank you.

6 MS. DUNCAN: Your Honor, if I could respond
7 briefly to Mr. Warbel's suggestions on the
8 questionnaire.

9 We have no objection to the change in
10 paragraph 2 of concluding as late as July of 2013.
11 We have no objection to that.

12 I -- you know, our preference would be to
13 keep the first point of March 11 through March 28, as
14 the Court has written it. March 28 is the last
15 in-court day, according to the schedule, that the
16 Court has set. And so we think it's more accurate to
17 say that that is the period of jury selection, and
18 that the trial will begin in early April. I think
19 the way the Court has written it just makes it
20 clearer, so we would urge the Court to keep its
21 language.

22 THE COURT: Well, I suppose I could even
23 say late March or early April, just...

24 MR. WARBEL: That was our point, Judge,
25 just in case we get done early, so we can -- we have

1 the freedom of moving right into trial.

2 THE COURT: Yeah, get done early. Based on
3 what I've seen so far in this case it might be a
4 reach, but I'll look at that.

5 Now, there may be other days that will not
6 be available for court for various reasons. I mean,
7 you know, somebody could get sick or -- so I -- I'm
8 actually thinking maybe I should just say concluding
9 in July. I guess as late as July -- yeah. I would
10 hate for things to come up and we end up with jurors
11 having problems with scheduling. I know that the
12 longer that we ask them to be away maybe the harder
13 it is to get people who have that kind of time
14 availability. But I don't know, I'll look at that.

15 All right. Now, there are a number of
16 questions that I have.

17 Now, both of you, in your questionnaires,
18 ask the juror to identify themselves. They ask for
19 the names, and we were trying to do this in a way
20 that would preserve anonymity, at least at some
21 level. And so you both have asked for names, and so
22 I'm wondering if you have any objection to us
23 proceeding in a way that uses a number by way of
24 identifying.

25 MR. WARBEL: No objection from the

1 government, Your Honor.

2 MS. DUNCAN: Your Honor, we have no
3 objection to the names being kept anonymous from the
4 public. But we're anticipating that the parties
5 would have access to the names.

6 THE COURT: Well, I was anticipating that
7 the questionnaires would be returned to us not with
8 names, but with -- with number identification.

9 MS. DUNCAN: Your Honor, I wondered if we
10 could keep the questionnaire as it is with the name,
11 and then if the questionnaires being made available
12 to anyone other than the parties, to redact just that
13 information and use the -- just have the juror ID
14 number. But the name is information that we would
15 need to prepare for voir dire.

16 THE COURT: All right. Tell me what the
17 names give you that the information doesn't.

18 MS. DUNCAN: I think it allows us to do
19 some independent investigation. I think it's
20 information that we need for demographics,
21 Your Honor.

22 THE COURT: That you need what?

23 MS. DUNCAN: Information for demographics,
24 Your Honor.

25 THE COURT: Demographics. All right.

1 Well, I'll look at that.

2 MS. DUNCAN: And we'd be happy to brief
3 that issue, Your Honor.

4 THE COURT: Okay. Now, let me look at that
5 issue just a bit and then I'll let you know if I need
6 you to brief it. I may agree with you, but let me
7 just take a look at it.

8 MS. DUNCAN: Thank you, Your Honor.

9 THE COURT: Now, there were a number of
10 objections that the government made to the
11 defendant's questionnaire.

12 So let me ask Mr. Warbel, first. You
13 object to -- you object to Question 41, for example,
14 but you don't object to 39 or 40 or 42. And so
15 I'm -- can you tell me why you object to that
16 particular question?

17 MR. WARBEL: Judge, I want to make sure I
18 don't say anything contrary to what I already -- just
19 to the point I think it's unnecessary. I think we
20 asked some questions to get their background, and I
21 understand the objective of this whole line of
22 questioning, to understand what type of people they
23 are, what they like to do, what they like to watch,
24 what they're reading, what they're influenced by.

25 But again, just on that whole theme of

1 shorter is better, I think we just had -- the
2 questions that we propose in our own questionnaire
3 were enough. I just thought that it wasn't necessary
4 to go through the extra -- extra points.

5 THE COURT: Okay. Now the reason I'm
6 wondering is because you -- I mean, that question
7 asked what kind of books they read or what authors
8 they like to read, and that you object to.

9 But the other questions about what TV shows
10 you watch, what newspapers, magazines or journals do
11 you read, what Internet websites or blogs do you
12 visit most often, those were not objected to. And I
13 really didn't see much of a difference.

14 And so your objection that they were
15 unnecessary or of limited value, I wasn't quite
16 seeing the distinction --

17 MR. WARBEL: Really, Judge, I thought we
18 had enough.

19 THE COURT: -- of just the content or the
20 volume. Okay. All right.

21 Then you indicate that Defendant's Question
22 107 is irrelevant, but it is somewhat similar to
23 Question Number 108, to which you did not object.

24 And I was just wondering if you could
25 comment on that. It seems like it would be --

1 MR. WARBEL: Judge, I think there's a
2 pretty strong distinction between 107 and 108.

3 107, I think, is a good public opinion poll
4 question. 108, I think, really gets to the heart of
5 whether they can be fair as a juror in a capital
6 case.

7 And it discusses, you know, do you feel so
8 strongly about the death penalty, you know, for or
9 against the death penalty, the two extremes there,
10 that you would always vote for it or never vote for
11 it or, you know, all the way to the middle there of a
12 person who has no strong feelings and can listen to
13 the law, listen to the facts, listen to the law. So
14 I think those-- those are distinguishable questions.

15 Question 107, whether -- whether a juror
16 thinks that the death penalty is useful or necessary
17 is not relevant to the question of whether they can
18 be a fair and impartial juror in a capital case.

19 MS. DUNCAN: Your Honor --

20 THE COURT: All right, Ms. Duncan.

21 MS. DUNCAN: This is really -- it's a
22 different way of getting to the question of a juror's
23 opinions or feelings about the death penalty. And as
24 the social studies, or science study that we have
25 cited in our motion indicates, jurors are not

1 always -- particularly jurors who are in favor of the
2 death penalty, are not always sort of self-aware
3 about the motivations and the reasons behind that.
4 And so asking questions about, you know, do you think
5 it's useful, necessary, just, or what is it about the
6 death penalty that makes you either for or against
7 it, are helpful to us, in order for us to determine
8 what jurors would actually be potentially fair and
9 unbiased in this case.

10 And I would also note to the Court that
11 this question is very similar to one that was asked
12 in Lujan. If you look at the Lujan questionnaire,
13 it's Question Number 122.

14 So I think it's -- because the topic is
15 such an important one in this case, it's important to
16 ask the question in some different ways, some more
17 nuanced ways that we can get the information we need
18 for jury selection. And that was the intent of this
19 question.

20 MR. WARBEL: Judge, if I might respond to
21 that?

22 THE COURT: Yes.

23 MR. WARBEL: First of all, to the point of
24 Lujan, I was involved in that case. So you know,
25 from a firsthand perspective, I just think we asked

1 too many questions in that case, and we still put
2 them through -- through all the questions on
3 individual voir dire as well. And I think that while
4 this might necessarily be one of those questions, I
5 think we are probably going to keep repeating that
6 theme that was asked in Lujan. And some of the
7 questions that were asked in that case were confusing
8 and of limited value.

9 The government's position here is, 107 is
10 of limited value compared to 108, and -- and we don't
11 need to keep asking more and more questions.

12 And also, the idea that might pop up here
13 is that because the question was asked in another
14 court case it should be asked in this case, and I
15 think that's a bad policy for us to follow here.

16 One, we don't know -- we didn't have the
17 full questionnaires from those cases to know the full
18 context of how they were asked.

19 Two, just simply that they have been asked
20 doesn't mean they need to be asked, Judge.

21 THE COURT: I have a few questions for you,
22 Ms. Duncan.

23 Now, there are a number of questions
24 that -- there were objections as to whether they were
25 relevant or necessary, so I wanted to ask you about a

1 few of those.

2 Question Number 25, how satisfied are you
3 with your present job.

4 Tell me why that's necessary or relevant.

5 MS. DUNCAN: Your Honor, I think that our
6 purpose of this question was depending on the job, it
7 gives us some insight into the juror's values into,
8 you know, what's important to them, what's not
9 important to them.

10 So I think that was -- it's -- you know,
11 there's a number of questions in the questionnaire,
12 including ones that are proposed by the government,
13 that ask about a juror's leadership, you know, how
14 they feel as a leader. I'm trying to find a similar
15 question. So this is along those lines, Your Honor.

16 THE COURT: And I would ask you the same
17 about 28, 29, and 30. You asked questions about
18 whether or not they're team players on the job or
19 whether they work on their own, or if they could
20 change things about their job what would they change
21 or -- you know.

22 Again, tell me why you think those are
23 necessary and why they are relevant.

24 MS. DUNCAN: Your Honor, I think the reason
25 is different for each of these questions.

1 Question 29, if you could change your job
2 or occupation to anything, what would you change it
3 to, is seeking information similar to Question 25, on
4 what are the juror's values, what are the juror's
5 goals that form their decision-making.

6 Question Number 28, would you describe your
7 current job as working more as a part of a team or
8 more on your own, that -- that is direct to learning,
9 you know, how jurors operate as part of a team. It's
10 relevant to their ability to participate as a juror,
11 which as you know requires the exchange of ideas,
12 listening to others, considering other opinions.

13 And so their experience in the workplace
14 with doing that, working together as a team, I think
15 is relevant to their ability to serve as a juror.

16 And Question 30, this question is relevant
17 because of the specific allegations in this case. As
18 Your Honor has heard, the allegations are that
19 Mr. and Mrs. Haas were retirees traveling in their
20 motor home on vacation to Colorado. And it's
21 important for us to know potential jurors' retirement
22 plans. Because if they have plans, you know, similar
23 to those of the Haases, that there's a real potential
24 there for bias.

25 And so that question, we've tried to draft

1 it as neutrally as possible, but that's intended to
2 identify those jurors who might have that
3 identification.

4 THE COURT: Do you have any comments on any
5 of that, Mr. Warbel?

6 MR. WARBEL: Only on the last one, Judge.

7 I mean, I don't think that even if somebody
8 has plans similar to that, that that makes them
9 biased in this case. I mean, it takes a lot more
10 than that to make -- to be biased. I mean, this is
11 not just a case about a retired couple who wanted to
12 go camping. It's about a retired couple who were
13 wanting to go camping who were kidnapped and killed
14 and their bodies were burned.

15 MS. DUNCAN: Your Honor, we're just seeking
16 information. We're not arguing that every person who
17 is retired, every person who drives a motor home be
18 disqualified as a juror; only that that is a subject
19 area of real potential bias. Someone who retires and
20 travels around the country as the Haases do would
21 have specific concerns to them, an experience that
22 might make them an unsuitable juror in this case.

23 But we're not claiming that that's an
24 automatic disqualification. It's just information we
25 need to have to be able to intelligently question

1 jurors in voir dire and make sure that this jury is
2 fair and impartial.

3 THE COURT: Now, so let me ask you about
4 Question 35. I mean, the government objected that
5 that was overbroad and irrelevant.

6 Now the question asked what clubs,
7 organizations, or volunteer groups do people living
8 in your residence belong to.

9 Tell me how that's relevant here.

10 MS. DUNCAN: Your Honor, that question is
11 intended to learn about the influences in the juror's
12 life. You know -- as you know, in a family that --
13 it's not just the clubs or organizations you belong
14 to, but those close to you go to clubs and
15 organizations, and their beliefs have an impact on
16 our decision-making.

17 So that is -- this question is intended to
18 find out what those influences might be.

19 THE COURT: Now, Mr. Warbel, I'm going to
20 ask Ms. Duncan questions, and I'm not necessarily
21 going to go back and forth. So if you have anything
22 you want to add on any of these just let us know, and
23 I will hear you on them.

24 MR. WARBEL: Thank you, Judge.

25 THE COURT: Now, Question 37. I think I

1 know what you're going to say about that, but tell me
2 why you think that one is necessary and relevant.

3 MS. DUNCAN: Your Honor, it's for the same
4 purpose we talked about, the retirement plans in
5 general. This is a more specific question.

6 You know, that there is a real potential
7 that people who either are retired and traveling in a
8 camper trailer as part of their retirement, or who
9 have family members in that position, will have
10 specific experiences, concerns, and fears that might
11 render them incapable of being fair and impartial in
12 this case.

13 So this question -- again, we're not
14 arguing those people are automatically disqualified
15 from serving as jurors, but it's intended to give us
16 information to determine if, in fact, that's a
17 problem for an individual juror.

18 THE COURT: All right. Now, 37 isn't
19 limited to a potential juror, but anyone close to
20 that potential juror.

21 MS. DUNCAN: Yes, Your Honor. And that's
22 intentional on our part because you know, just as a
23 human being, I mean, you're not just concerned about
24 yourself, but for -- you know, for example, my
25 parents are retired and they do certain things. And

1 so it's to identify those situations. We're not
2 concerned about ourselves, but those who we love.
3 And having a family member who regularly travels the
4 highways of this country in similar circumstances
5 might raise concerns or fears that would render that
6 person biased.

7 I mean, we won't know unless we ask.

8 THE COURT: All right. And then the
9 subpart asks for a little more narrative about the
10 potential juror, or I guess anyone close to them, to
11 identify the person and describe generally their use
12 of the RV or the camper trailer.

13 Again, how is that --

14 MS. DUNCAN: Sure. Your Honor, we were
15 trying to figure out some way to distinguish between
16 someone who, you know, went to Europe for the summer
17 and rented an RV just for that summer, or people as I
18 was describing earlier, retirees who generally --
19 that's their vacation, that they are generally
20 traveling the country using an RV or motor home.
21 Because I think, you know, distinguishing between
22 that large group would help us to determine who is
23 likely to have a bias or whose use is so remote or
24 incidental that it's not likely to be influenced.

25 THE COURT: Let me ask you about Question

1 43. And let me ask you to address both the issue of
2 whether it's necessary and relevant. But also, isn't
3 that maybe duplicative of Question 39?

4 MS. DUNCAN: Your Honor, it is somewhat
5 duplicative of Number 39, but it's intended to sort
6 of identify a different class of information.

7 39 asks what television shows you watch
8 most often. And of course that may include just, you
9 know, game shows, dramas, daytime soap operas, et
10 cetera.

11 Question 43 is what radio or television
12 talk shows you watch or listen to on a regular basis.
13 And this is intended to give us information about a
14 juror's political views, you know, what's important
15 to them in terms of what's happening in the world,
16 the country, the community.

17 So it's -- it's information that we think
18 is highly relevant to their ability to sit fairly and
19 impartially in this case.

20 So I think that's -- that is -- we're just
21 sort of -- we were trying to target that specific
22 information.

23 THE COURT: All right. Let me group
24 Questions 44, 46, and 47 together. And again, tell
25 me how those are relevant or necessary.

1 MS. DUNCAN: Your Honor, I think that the
2 relevance -- again, they are different questions.

3 44 and 47. Again, we are asking about -- I
4 think in 44, have you ever called in to a radio talk
5 show, or have you ever written a letter to the editor
6 or participated in a blog or a chat room, that is
7 intended to identify issues about which the juror
8 feels passionately, what's important to them, which I
9 think is an important factor in understanding their
10 motivations and their potential for bias.

11 The same is true of 47. We tend to put
12 bumper stickers on our cars indicating things that we
13 feel strongly about, our most -- our political
14 issues. So that is, again, information that would
15 help us to understand the juror, you know, what is
16 important to the juror.

17 Number 46, the media or press reports in a
18 particular criminal case. You know, I think this
19 question has got a couple of purposes. One is,
20 generally speaking, what is the juror's interest and
21 knowledge of the criminal process, in general.

22 More specifically, as you know, there
23 recently was the Astorga trial in Santa Fe. And that
24 generated a lot of media, a lot of public opinion and
25 sentiment in the community.

1 We didn't want to ask the specific question
2 about Astorga, but wanted to ask something that might
3 allow a juror who has strong feelings about that case
4 to express them here.

5 And obviously, if that is the case that a
6 juror paid particular attention to, it's something
7 that the parties and the Court would want to inquire
8 into on voir dire.

9 THE COURT: All right. Now --

10 MR. WARBEL: Judge, can I say something
11 about that Question 46?

12 THE COURT: Yes.

13 MR. WARBEL: Again, moving on that -- that
14 same question, or something almost identical to it,
15 was asked in Lujan last summer. And at that time,
16 there were -- the Anthony trial was going on in
17 Florida, which you couldn't avoid the media coverage
18 of. And it's just -- as an idea to say that it's
19 needed to figure out if anybody is following this
20 just so we can ask questions, that question was never
21 asked, and it wasn't followed up on with anybody,
22 even when someone said that they were following that
23 trial and -- or excuse me. I think the
24 questionnaires had been completed before that trial
25 started.

1 But just as an idea that in one case
2 example, that that was a topic that the parties --
3 neither party followed up on. So that supports the
4 government's observation that that question isn't
5 necessary here.

6 MS. DUNCAN: Your Honor, may I please
7 respond?

8 THE COURT: Okay.

9 MS. DUNCAN: Your Honor, the Casey Anthony
10 trial was occurring in a different state. The
11 Astorga trial happened here in New Mexico. And as
12 you know, the issue of the death penalty has been
13 hotly debated in this state for a long time, and a
14 lot of people paid attention to that case because it
15 is likely the last state death penalty trial in
16 New Mexico. So this isn't an abstract, O.J. is going
17 to trial kind of question. But rather, that there is
18 a case that happened in our community about which
19 people felt really strongly.

20 And again, we didn't want to ask a specific
21 question to suggest anything to the jurors, so we
22 asked this general question, kind of in the hopes for
23 eliciting that information.

24 THE COURT: All right.

25 You know, there are a number of these

1 questions, and I understand that they are intended to
2 be information gathering. I understand that they are
3 intended to help you maybe learn something about
4 attitudes of jurors.

5 But I guess I'm stuck on how that's really
6 useful. Take bumper stickers or decals, for example.
7 Again, the question is not just whether the potential
8 juror has bumper stickers or decals, but whether any
9 member of their household has bumper stickers or
10 decals on their vehicles. And so you know, I think
11 you have mentioned a political type of bumper
12 sticker, so they have a political bumper sticker or a
13 particular candidate of a particular party or
14 whatever.

15 So certainly, that doesn't disqualify
16 someone from serving as a juror. And so I'm just not
17 sure what the value to you ultimately is.

18 MS. DUNCAN: Your Honor, I think that
19 what --

20 THE COURT: And I don't mean to just pick
21 on that particular question, because -- because you
22 have said a number of times that some of these
23 questions are intended to elicit information, and
24 more information is better and so forth.

25 But is it necessary? And so that's what

1 I'm really wondering.

2 MS. DUNCAN: And, Your Honor, I think that
3 the information that we are seeking to elicit with
4 the bumper sticker question, the talk show question,
5 that information is necessary. I think -- you know
6 what we struggle with, which I think you always
7 struggle with in asking these questions, is how to
8 frame a question to get the information we need
9 without asking it, you know, over and over again or
10 in so many different ways.

11 So you know the bumper sticker question,
12 I'm sure that there are people who will answer this
13 question in a way that's of no value to us. But
14 there may be some jurors who have bumper stickers
15 expressing political or social views that would be
16 highly relevant to how they will view this particular
17 case and the issues in this case.

18 So I -- we do believe it would be useful.

19 THE COURT: All right.

20 MS. DUNCAN: Obviously, our greatest
21 concerns are for the opinions and beliefs held by the
22 juror themselves, although we maintain that the
23 influence in their household is really important.

24 THE COURT: Now, let me group Questions 54
25 through 61 and then also 63. Tell me, why are those

1 are not overly intrusive, in your view.

2 MS. DUNCAN: Your Honor, I mean obviously,
3 there's a link between religion and the death
4 penalty, what are the people's views about the death
5 penalty. I mean, we did ask quite a few questions
6 about this topic.

7 You know, I think we likely could limit the
8 number or cut down the number of questions on
9 religion. But I'd like to highlight for the Court
10 the ones that we think are most important.

11 I mean, Number 53 --

12 THE COURT: And I didn't ask about 53.

13 MS. DUNCAN: Okay. We'll start with 54,
14 how many times a month do you attend religious
15 services. That question is sort of a quick way to
16 ask how important is religion in your -- you know,
17 religion in your life. And how often do you attend
18 services is a good indicator of a person's -- of the
19 role that religion might play in their life.

20 Number 59 is kind of the flipside to that
21 question. It's do you belong to any Bible or other
22 religious study or group.

23 As Your Honor knows, there's some people
24 who feel very strongly about their religious beliefs
25 who don't attend formal services, but might

1 participate with others in study groups, Bible
2 groups. And if they are participating in such a --
3 you know in such gatherings on a regular basis,
4 again, that's an indication of the strength of their
5 beliefs.

6 The Question Number 55, in what religion
7 were you raised, that question is important because,
8 as you know, so many people were raised in a
9 particular religion, and as they get older, either as
10 a matter of personal belief or experience or because
11 of marriage, change their religion. And so if
12 someone can answer 53, you know, I'm agnostic, but we
13 were raised Catholic. And the Catholic views may
14 continue to inform that person, even if they no
15 longer self-identify in that particular religion. So
16 we were -- this question was intended to -- to
17 identify those people.

18 Number 56. You know, this is similar to
19 the how many times a month. I just think -- given
20 the purpose of the question, I don't know that that
21 one is critical.

22 Number 57. Again, it's sort of intended to
23 identify all the religious influences in a particular
24 juror's life. If they're raising a child in a
25 religion different than their own, we want to know

1 what that is.

2 And you know -- but I don't have that --
3 that one is not as important, for example, as
4 Number 55, about the influence of -- the religious
5 influence of their childhood.

6 Number 58. It's -- this measures, really,
7 two things. One is the importance of religion and
8 their religious beliefs in their life. The second is
9 their leadership abilities, whether they have
10 accepted or taken on a leadership role in a religious
11 organization.

12 And Number 60, this is about
13 religious-based schools. It's similar to -- to how
14 many times a month. And also, do you attend
15 religious services, and also have you studied. I
16 think it's less important than those two.

17 Number 61 is, do you consider religion an
18 important part of your life. I think that is just a
19 straightforward question of, in the juror's mind, how
20 important is that.

21 And I think the next one you asked me about
22 was Number 63?

23 THE COURT: Correct.

24 MS. DUNCAN: Well, I think this is sort of
25 the fundamental question, is what do -- does your

1 religion teach you about the death penalty. And
2 obviously, that would be a followup in voir dire of
3 the influence of that religious teaching on the
4 juror's own opinions on the death penalty.

5 THE COURT: Now my next question is
6 Question 73. Now why is 73 necessary, in light of
7 Question 72?

8 MS. DUNCAN: Well, Your Honor, they seek
9 slightly different information.

10 THE COURT: Right.

11 MS. DUNCAN: Number 72 is, you know, have
12 you or anyone been the victim of a crime, generally
13 speaking.

14 With Number 73, we are asking have you ever
15 known anyone who was the victim of a violent crime.

16 THE COURT: Right. So what does 73 add,
17 really?

18 MS. DUNCAN: Your Honor, it's intended to
19 learn jurors' experiences where, you know, someone
20 that they know, who they are not necessarily close
21 to, has been the victim of a violent crime or had a
22 family who was a victim of a violent crime.

23 And although that can be frequently very
24 upsetting to the jurors, or to people if someone,
25 even if you're not -- you don't have a close personal

1 relationship, knowing someone, for example, who has
2 been murdered can be disquieting and can also raise
3 real fear issues in a person. And so that could
4 impact their ability to sit fairly in a case that
5 involves a violent crime.

6 And so this question was intended just to
7 learn about that sort of broader -- it was limited to
8 violent crime rather than just crime in general, but
9 broad enough to include people who know.

10 THE COURT: So then what does 75 bring to
11 this?

12 MS. DUNCAN: Your Honor, 75 -- it is the
13 corollary to 73. And I think that is intended to
14 encompass everyone who had this experience, but I
15 would say 73 is the more important question.

16 And again, I think it asks if you knew
17 someone whose -- you know, whose brother was murdered
18 and you saw the impact of that, of that crime on them
19 and how did that affect you, that was the intent of
20 75, in case that experience -- a juror who had that
21 experience would not necessarily put it down under
22 Number 73.

23 THE COURT: And look at 74 for a second and
24 tell me what -- why that's relevant, in your opinion.

25 MS. DUNCAN: Your Honor, I think -- you

1 know, what we intended with this question is to
2 identify jurors who have sort of a general fear of
3 crime, you know, that that's their general fear and
4 would impact their ability to fairly -- recognizing,
5 going over the questionnaire, that maybe it isn't
6 drafted well enough to capture that information. So
7 that was our intent.

8 It also, I think, would capture people who
9 were not necessarily the victim of a crime, but
10 nonetheless who have been threatened.

11 THE COURT: It's getting close to 4:30, and
12 I do have just a few more questions.

13 Questions 79 and 80. Given 79, is 80
14 necessary, in your opinion?

15 MS. DUNCAN: Your Honor, you know, in
16 looking at these two questions, one of the thoughts
17 that -- and they are asking different things.

18 At this point in jury selection, one of the
19 things that we're trying to do is identify jurors'
20 feelings and beliefs about different issues, to
21 determine if, in fact, they might have a problem
22 following particular instructions, or the Court's
23 instructions in this case.

24 So one of the thoughts that we had was to
25 combine 79 and 80. So to begin with, 79, a number of

1 witnesses at the trial would be law enforcement
2 officers from other federal, state, or local law
3 enforcement agencies. The judge will instruct you to
4 consider, in evaluating those persons' testimony,
5 just as you would consider any other witness'
6 testimony, and then to delete the rest of 79 and
7 begin with 80. And that would bring it into one
8 question and would elicit the information we are
9 seeking, which is really what are the jurors'
10 thoughts and feelings about this.

11 THE COURT: Let me jump to 93 -- actually,
12 93 and 94. I guess we got into a little bit of the
13 specifics in your comments earlier.

14 My -- I guess I would only ask if you have
15 anything to add with respect to 93 and 94. I mean, I
16 was wondering whether or not those were necessary,
17 especially in light of the fact that they ask the
18 jury to assume certain facts, even though the facts
19 are not yet in evidence.

20 And I heard what you had to say earlier
21 about specific cases and how they might have --
22 excuse me -- specific facts and how they might have
23 an impact on how a juror views some of the issues.

24 If you have anything else that you want to
25 add to that?

1 MS. DUNCAN: Sure, Your Honor. And I think
2 that these are two issues that are likely to invoke
3 responses in jurors, or to be a source of bias. The
4 one being this -- you know the escape, and the second
5 being the prior convictions.

6 If you frame the questions, you know, not
7 to ask -- not to commit the jurors to any particular
8 position, but just to find out -- this evidence is
9 going to come in, and is it going to impact how you
10 decide these cases.

11 We know the Court will instruct the jurors
12 on the specific uses that it can make -- that the
13 jury can make of these facts. But it's -- as you
14 know, this evidence is so highly inflammatory that we
15 need to know if a juror has a specific issue with
16 this, so that we can address it in voir dire.

17 You know, this is -- I think these two
18 issues are -- are issues in any criminal case where
19 there's -- for whatever reason, you know, just your
20 regular felon in possession of a firearm case, trying
21 to figure out whether a juror is going have a hard
22 time compartmentalizing an allegation of a prior
23 felony, and using it only for the purpose for which
24 the Court is allowing it to come in. So we're just
25 trying to identify those jurors who might have an

1 issue for voir dire so we can explore it further.

2 THE COURT: All right.

3 MR. WARBEL: Judge, if I may add?

4 THE COURT: Sure.

5 MR. WARBEL: I think it's dangerous to ask
6 these questions now without the benefit of context
7 and the Court's instructions. Because if a juror
8 answers yes to 94 without the benefit of having ever
9 been instructed by a Court that what they -- what
10 their duties are as a juror, then that might -- then
11 later, that juror might come into court and -- and
12 listen to the instructions and say, Oh, maybe I would
13 feel differently.

14 But now we're struck with 94, saying yes to
15 that question, and that -- given grounds for an
16 exclusion that maybe shouldn't -- shouldn't be. So I
17 think that question is dangerous.

18 MS. DUNCAN: May I respond, Your Honor?

19 THE COURT: Sure.

20 MS. DUNCAN: We're just trying to determine
21 if there's an issue here, something that we could
22 follow up in court. But whether a juror will or will
23 not have a problem following this Court's
24 instructions depends on whether the juror has beliefs
25 that are consistent or inconsistent with that

1 instruction.

2 So I don't think it is dangerous. I don't
3 think we're going to end up in a situation where a
4 juror says yes to this and somehow makes it on the
5 jury without any further questioning. We're just
6 identifying those people for whom -- you know, where
7 further explanation is warranted. And that's true of
8 both of these questions.

9 THE COURT: All right. Now, let me turn to
10 98 for just a second.

11 You asked whether any of them or anyone
12 close to them live, work, or travel in the I-40 near
13 Santa Rosa and Tucumcari, New Mexico, area.

14 Is that really necessary?

15 MS. DUNCAN: Your Honor, yes, I do think it
16 is. Because if the jurors have family members or
17 they themselves are frequently traveling along that
18 section of the interstate, that's a potential
19 ground -- you know, a potential source of bias in
20 this case.

21 For example, if we have a truck driver who
22 goes down that part of the highway every week and
23 stops at truck stops along that -- you know, along
24 that stretch of interstate, they are going to have
25 concerns that other jurors wouldn't have. And this

1 question is intended to identify them so we can
2 explore that further.

3 THE COURT: Let me ask about 106, 107, and
4 108. And my question really is whether, in your
5 view, 106 is duplicative of 107 and 108.

6 MS. DUNCAN: Your Honor, I think 107 and
7 108 are asking for general views on the death
8 penalty. And I do, for the reasons we've talked
9 earlier about -- if we address 107 and 108 together,
10 I think they are asking for similar information, but
11 they are asking it in different ways, which I think
12 can help us to identify people who hold beliefs or
13 opinions that might disqualify them on the issue of
14 the death penalty or life imprisonment in this case.

15 Number 106 asks the jurors' thoughts for a
16 defendant who's guilty of two willful, deliberate,
17 malicious, and premeditated murders.

18 And as Your Honor is aware, the government
19 has alleged these mental states for -- I think the
20 majority of the death-eligible counts in the
21 indictment.

22 And so here -- the intent here is to get a
23 sense of -- you know, given -- given the aggravation,
24 or given the evidence in the case, is this a juror
25 who can fairly and impartially consider mitigating

1 evidence and in the possibility of -- so I think
2 those two fall in different categories.

3 MR. WARBEL: Judge, a little bit off the
4 top.

5 THE COURT: Yes.

6 MR. WARBEL: But 106 introduces some
7 language that I think we see through a lot of the
8 defense questions, back to the topic of case-specific
9 questions.

10 And responding to a little bit of what
11 Ms. Duncan said earlier, the standard here is Morgan,
12 Your Honor, which is, will the juror automatically
13 vote for the death penalty, or conversely, never vote
14 for the death penalty under any circumstances, not
15 under circumstances specific to the case, not under
16 circumstances that are two willful deliberate
17 murders.

18 So you know, I think this is an example, as
19 we pointed out in the briefs, the defense counsel
20 extending Morgan to argue for case-specific
21 questions.

22 And McVeigh, while it doesn't say that you
23 can't ask those questions, it gives strong arguments
24 of why you shouldn't ask those questions. And while
25 Johnson is a District Court from Iowa, Fell is a

1 District Court from Vermont, McVeigh is the mandatory
2 precedent for this circuit. So we would ask you to
3 follow that.

4 MS. DUNCAN: Your Honor, that's not the
5 standard. I mean, Morgan doesn't say that the Courts
6 are not allowed or required to use case-specific
7 questioning to ferret out jurors who cannot be fair
8 and impartial in the case. That simply wasn't the
9 issue in Morgan.

10 The issue was the -- the general question
11 about whether a juror could consider a life sentence,
12 period. And so the District Courts who have allowed
13 case-specific questioning in their courtrooms have
14 seen that as a natural extension of Morgan, where you
15 have a sentencing scheme like the Federal Death
16 Penalty Act that requires jurors to consider
17 mitigating circumstances no matter the aggravators.

18 So McVeigh doesn't preclude this Court from
19 considering those questions. And the reasoning in
20 Johnson and the myriad of other Federal District
21 Court cases that follow it are persuasive, that you
22 can't know if a juror can be fair and impartial to
23 Mr. McCluskey, given the aggravating circumstances
24 here, which they must be, without asking them about
25 it.

1 So in this language of willful, deliberate,
2 malicious, and premeditated is not, in fact, fact
3 specific. It's allegation specific. That's the
4 language that the government alleges in the
5 indictment. And quite -- it's quite similar to that
6 language that the Court in Johnson found to be a
7 classic Morgan question.

8 THE COURT: All right. Let me--

9 MR. WARBEL: Judge, sorry. But again, this
10 is also where I think we are -- especially in the
11 questionnaire this is dangerous, because they are
12 going to get locked into positions here that are
13 stuck -- they are stuck with throughout, without ever
14 meeting you and being instructed by you on what the
15 law is and what their duties are.

16 THE COURT: All right.

17 Let me ask about Question 109. The
18 question is, what views do your family members have
19 on the death penalty.

20 And I -- again, tell me -- I want to hear
21 from you why you think that's necessary or relevant.

22 MS. DUNCAN: Your Honor, I think that this
23 is the most important of the questions we asked about
24 what family members or household members believe.
25 This really goes to the heart of what's at issue in

1 the penalty phase.

2 If a juror's family members all have strong
3 feelings about the death penalty one way or another,
4 that's an influence on the juror that we need to
5 understand and to probe, to determine if the juror or
6 potential juror can be fair and impartial. So
7 it's -- you know.

8 And I think in addressing the concern
9 raised by the government that a potential juror
10 filling out the questionnaire might go and ask, you
11 know, or involve the family member in answering this
12 question, because we're asking about how they view
13 it.

14 I would note that in the stipulated
15 introduction to the questionnaire you are instructing
16 the prospective jurors. It explicitly says: "Do not
17 discuss the case or your answers with anyone. It's
18 important that your answers be yours alone, so you
19 should fill out the questionnaire without consulting
20 with any other person."

21 So they are instructed at the very
22 beginning that we're asking this question about
23 another family members.

24 But I think it's critically important for
25 us to know what potential jurors' family members

1 views are on the central issue.

2 THE COURT: All right. Now, I have just
3 three more of your questions that I want to ask
4 about. I want to -- and they are on different
5 issues. But we really already are running out of
6 time, and I want to try to hear you.

7 120, 125, and 128. And again, tell me why
8 you think that they are necessary or relevant.

9 MS. DUNCAN: Number 120, Your Honor, is the
10 question about how likely do you think it is that the
11 person would be put to death or sentenced to death.

12 We included this question because you know,
13 the case law is very clear and explicit that the
14 jurors have the individual responsibility in
15 sentencing someone to death, that this is their
16 decision. And this is not -- you know, that they
17 can't assume that someone else is going to step in
18 and save the day so that their sentence of death is
19 not going to be put into effect. So this is intended
20 to determine whether the jurors understand that a
21 sentence of death means death.

22 And one of the reasons why we included
23 this, Your Honor, is that some of the jurors -- and I
24 think in fact a family in the Astorga case --
25 expressed this belief that had Mr. Astorga been

1 sentenced to death it wouldn't have mattered, because
2 he would never be executed.

3 So there's a danger that if a juror
4 believes that, that they could sentence someone to
5 death, not -- you know, in fact thinking they are
6 sentencing them to life, which is just not true. So
7 this question is -- is intended to identify those
8 people who have that misperception.

9 THE COURT: All right. 125, even if you
10 hold very strong beliefs, religious, philosophical,
11 or otherwise, are you able to discuss and exchange
12 thoughts and ideas with someone with different strong
13 beliefs.

14 MS. DUNCAN: Again, Your Honor, this
15 question is intended to, you know, measure a juror's
16 ability to exchange views with other jurors, to learn
17 if someone -- can you share your thoughts with
18 someone who disagrees with you.

19 And we're essentially trying to -- in
20 125 -- and this is sort of a flipside question to
21 Question 128. But it's essentially that the juror is
22 going to be asked to consider -- you know, to
23 consider other jurors' opinions on questions of guilt
24 and innocence, and in the penalty phase, to consider
25 each others' opinions. So we need to know if the

1 juror is comfortable expressing opinions and
2 considering the opinions of others.

3 And as you know, Your Honor, under the
4 Federal Death Penalty Act, you know, each juror has
5 an individual determination of whether they find a
6 particular mitigating fact. And so we need to know,
7 are jurors able to respect those sorts of decisions
8 even if they disagree with them.

9 And that's the intent of this question.

10 THE COURT: And you mentioned the 128 being
11 the flipside. That was the other question I asked
12 you about.

13 MS. DUNCAN: Yes. I think one question is
14 intended to sort of figure out if your -- if someone
15 holds strong opinions, are you able to hold on to
16 your own, you know, to express your opinions. And
17 the other one is the flipside of that.

18 THE COURT: Well, we're going have to wrap
19 it up. I don't know if you have any other comments
20 that you want to bring to the Court's attention, but
21 because we really are out of time today, and I know
22 you are leaving tomorrow, if either of you have
23 anything you want to add in writing I can give you a
24 few days, if you'd like to do that. It's not
25 required. I don't -- I don't require it. It's just

1 if there's something that you had to say that you
2 didn't have a chance to say today I'd give you that
3 opportunity.

4 MS. DUNCAN: Your Honor, we would
5 appreciate that, because there are some objections
6 the government has raised that we had phrased with
7 respect to the government's questions that we haven't
8 addressed here today.

9 The one I'm thinking of is the question of
10 the term of years and whether to include the term of
11 years in describing possible penalties in this case.

12 MR. WARBEL: Judge, we have nothing that
13 we'll be briefing that -- we may want to respond.

14 We did briefly get together here, and it
15 turns out, you know, from going from something we
16 learned today that was said today, us not objecting
17 to the names being on there, we would actually --
18 based on what was said today in court, we would
19 object to the names being on these questionnaires.
20 Because defense counsel indicated that having the
21 names would allow them to investigate the jurors and
22 probably their families and where they're from and
23 where they live. And we strongly believe that that
24 is inappropriate in -- in preparing for trial and an
25 inappropriate use of these questionnaires.

1 THE COURT: All right. Your positions are
2 noted.

3 MS. DUNCAN: Your Honor, I just want to --
4 would you like for us to brief the issue on the
5 anonymous juror question? I mean, there are some
6 standards and a lot of law out there that I would
7 like to bring to the Court's attention in making that
8 decision.

9 THE COURT: Well, I can give you that
10 opportunity, but we may have to shorten some of the
11 time frames on that, because we need to get -- we
12 need to get this stuff finalized as soon as possible.

13 What are we locking at now, end of
14 October to mail out? And what I -- so I need to hear
15 from you on these things as soon as possible, because
16 I'm trying to get my questionnaire put together.

17 I will -- after I get my questionnaire put
18 together, I'll submit it to you-all so that you can
19 comment on it. And then your comments need to be
20 returned to the Court, giving the Court sufficient
21 time to give your comments proper consideration and
22 get this thing out by the end of October.

23 So if you'd like to submit anything, I --
24 you can do that, but we're talking about a submission
25 and then a response. And depending on when you get

1 it in, we might have to discuss some shortened
2 briefing schedules.

3 MS. DUNCAN: Your Honor, we could get
4 something to the Court by next week.

5 THE COURT: All right. Now assuming that
6 that's the case, how quickly can you-all respond?

7 MR. WARBEL: On the anonymous jury issue?

8 THE COURT: On the anonymous jury issue and
9 also whatever else they care to bring to the Court's
10 attention.

11 MS. DUNCAN: The term of years issue.

12 MR. WARBEL: We'll make it happen in a
13 week, Judge.

14 THE COURT: In a week? All right.

15 Well, I'll see -- I'll see you tomorrow
16 morning at 9:00.

17 Now, do you think we're going to actually
18 finish tomorrow?

19 I would hope that we could -- do you think
20 we can actually finish this portion of our hearing
21 tomorrow?

22 MR. BURT: I hope so. I think Ms. Mott had
23 used the word "lengthy cross-examination" of
24 Dr. Schwartz, and I don't intend to be lengthy on the
25 direct. But perhaps -- typically, these crosses last

1 longer than the direct, so it's really her call.

2 But I think we can move the direct along
3 rather quickly and get to the cross. So...

4 THE COURT: All right. Well, I don't know
5 what you-all have planned, but this was set to be a
6 two-day hearing. And so I, again, would just ask you
7 to be efficient, move this along. I mean, I know
8 what it is to stand at that podium and get caught up
9 in asking questions. But really, just keep in mind
10 what our purpose is. And it's not a deposition and
11 it's not -- well, you get the point.

12 See you tomorrow at 9:00.

13 (Proceedings concluded.)

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CERTIFICATION

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter. I further certify that the transcript fees and format comply with those prescribed by the Court and the Judicial Conference of the United States.

Date: August 23, 2012

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GOVERNMENT'S EVIDENCE

WITNESSES:

JOHN MURDOCK:

Cross-Examination by Mr. Burt7

KATHARINA BABCOCK:

Direct Examination by Ms. Mott152

Certificate of Court Reporter249

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