

1 IN THE CIRCUIT COURT FOR PRINCE GEORGE'S COUNTY, MARYLAND

2

3 STATE OF MARYLAND,

4 VS

CRIMINAL TRIAL 08-1682X

5 HENRY WHITTINGHAM

6 DEFENDANT.

7

8

9 REPORTER'S OFFICIAL TRANSCRIPT OF PROCEEDINGS

10 [RULING OF THE JUDGE]

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Upper Marlboro, Maryland
Wednesday, December 30, 2009

13

14 BEFORE:

15 HONORABLE NICHOLAS E. RATTAL, ASSOCIATE JUDGE

16

17 APPEARANCES:

18 For the State:

19 WES ADAMS, ESQUIRE

20 For the Defendant:

21 MICHAEL BEACH, ESQUIRE

22 YOLANDA HAWKINS-BAUTISTA, ESQUIRE

23

24 DEBBIE K. KLAPASKA

OFFICIAL COURT REPORTER

25 P.O. Box 401

Upper Marlboro, Maryland 20773

(301) 952-4048

P R O C E E D I N G S

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3 THE CLERK: Case number seven on the
4 docket, CT08-1682X, State of Maryland versus Henry
5 Whittingham.

6 MR. ADAMS: Good afternoon, Your Honor.
7 Wes Adams, on behalf of the State.

8 MR. BEACH: Good afternoon, Your Honor.
9 Michael Beach, on behalf of Mr. Whittingham, who is
10 present and to my left.

11 Yolanda Hawkins-Bautista is out of the
12 area at this moment on holiday travel.

13 [Discussion Off The Record]

14 THE COURT: All right. What we have left
15 is a couple of other motions which we'll deal with
16 on Monday; or at least as my notes stated, or as I
17 read them. It says that we will pick a jury on
18 Monday and we'll take whatever motions and actually
19 start the trial on Tuesday.

20 I have a three-judge panel which starts at
21 9:00, so if you guys want to check in around 9:45,
22 to get an idea, instead of sitting around waiting,
23 and we'll bring in enough jurors. We've got a
24 panel, so they'll stay with us, so we're not going
25 to be reshuffling, unless something major rolls

1 through.

2 This was in -- actually, it seems like
3 it's been going on forever, but this is for my
4 ruling on the ballistics, as it was set in. I've
5 written a lengthy opinion, which I'll try to read it
6 into the record.

7 And for whatever it's worth, this was one
8 of my favorite issues I've ever had as a Judge, and
9 it was really argued well by both sides, and I was
10 impressed by the experts and the knowledge of it and
11 all of the information that both sides gave me. And
12 I've had a -- and I've read, or got reams of stuff.
13 But let me start.

14 We're here for a ruling on the Defense's
15 motion to exclude the testimony of the State's
16 expert in this case, Terry Eaton, or in the
17 alternative, to limit his testimony.

18 The Defense, under Frye-Reed, has argued
19 that essentially ballistics identification, as a
20 science, does not meet the Frye-Reed standard as
21 being generally accepted in the field; and in fact,
22 may not even be called a science; and that the AFTE,
23 A-F-T-E, process, or procedure of identification
24 methods, are unreliable.

25 And further, that there is not enough data

1 or statistics in the field to testify to the
2 exclusivity -- if that's the word -- of the
3 identification of a particular bullet or bullets to
4 a gun barrel.

5 I have listened to the testimony of all
6 three experts, read all of the exhibits, read every
7 case cited and listened to the arguments of the
8 attorneys. And actually, I ran searches on case law
9 to see if anything has happened since we had the
10 hearing.

11 And the one case that Mr. Adams gave me,
12 Markham, I had already read it by the time he had
13 provided it to me, because I was wondering if
14 anything else was going on in the field because it
15 seems to be going on all over at this time.

16 And I make the following findings of facts
17 and conclusions of law:

18 The evidence that Mr. Whittingham seeks to
19 suppress is the expert testimony regarding the
20 identification of toolmarks made by a firearm.

21 And a toolmark is generated when a hard
22 object comes into contact with a relatively softer
23 object, such as marks that result when the internal
24 parts of a firearm make contact with the brass and
25 lid that compromise ammunition.

1 Or, as Mr. Tobin stated, and I'll quote:
2 "Markings left by the manufacturing tools
3 of firearms during the manufacturing
4 process are called toolmarks.
5 "A firearms' internal components include
6 the barrel, the chamber, the breach face,
7 the firing pin, the extractor and the
8 ejector, and these components have
9 individual characteristics that result
10 from the manufacturing process, such as
11 the cutting, drilling, grinding,
12 hand-filing and very occasionally
13 hand-polishing.
14 "The most individual characteristics on a
15 spent bullet stem from the process that
16 renders a gun barrel from a piece of
17 solid steel.
18 "A first step of the process, drilling,
19 results in a comparatively rough hole of
20 uniform diameter extending from one end
21 of the barrel to the other.
22 "Next, the barrel is bored with a reamer
23 designed to produces as smooth a surface
24 as possible on the inside of the barrel.
25 "The interior surface, or bore, bears

1 numerous scars and scratches from the
2 drilling process. It is these random
3 imperfections, more than the subsequent
4 steps, that are said to account for
5 individual characteristics on the fired
6 bullets.

7 "The bullets are further subjected to a
8 rifling process creating a pattern of
9 grooves on the inside of the barrel.

10 "The bullet impacts with the barrel
11 rifling, and it is given a rotation that
12 gives the bullet a more direct flight.

13 "The rifling may be created by forcing a
14 bit through the reamed barrel."

15 It is the normal wear on this bit, as many
16 riflings are produced, or are performed, that is
17 said to impact individual microscopic variability in
18 the markings of the barrel, along with the other
19 stuff I've previously mentioned.

20 But I also note, and this is also in a
21 Federal case called Glenn, at 578 F.Sub.2nd, at 572,
22 that the mass production of guns have replaced
23 hand-manufacturing, and today guns are mass-produced
24 with even greater precision.

25 One of the cases that I've read, Mattiero

1 [phonetic], with Judge Saris, and that's S-A-R-I-S,
2 and I'm quoting him, explained:

3 "How these components and their
4 characteristics caused toolmarks on
5 bullets and cartridge casings."

6 And like I said, I'm quoting the other
7 Judge, and I believe his findings of facts are what
8 my findings of facts are.

9 "When a round of ammunition is fired from
10 a particular firearm the various
11 components of ammunition come into
12 contact with the firearm at very high
13 pressures. As a result, the individual
14 markings on the firearm parts are
15 transferred to the ammunition.

16 "The ammunition is composed primarily of a
17 bullet in the cartridge case. The bullet
18 is the missile-like component of the
19 ammunition that is actually projected
20 from the firearm through the barrel
21 towards the target.

22 "The cartridge case is the part of
23 ammunition situated behind the bullet
24 containing the primer, the propellant and
25 the explosive mixture of chemicals that

1 cause the bullet to be projected through
2 the barrel.

3 "In the case of a semi-automatic firearm,
4 once a round of ammunition is loaded into
5 the chamber, the gun is cocked, the
6 shooter pulls the trigger, the firing pin
7 is released, the firing pin strikes the
8 back of the cartridge case, igniting the
9 primer in the ammunition, causing and
10 starting this chemical reaction, leading
11 to the bullet being pushed down the
12 barrel by expanding gasses.

13 "These gasses also exert an equal and
14 opposite force on the cartridge case,
15 which forces the slide and breach lock to
16 the rear. This ejects the spent
17 cartridge case through the port on the
18 side or occasionally on the top of the
19 slide.

20 "During this process, which occurs in a
21 fraction of a second, the cartridge case
22 comes into contact with several parts of
23 the firearm.

24 "When the cartridge case is slammed into
25 the standing breach face, some of the

1 individual toolmarks left on the breach
2 face in the manufacturing process are
3 replicated on the surface of the
4 cartridge case. These toolmarks are
5 referred to as impressed toolmarks.

6 "Other marks might be left on the
7 ammunition when parts of the firearm,
8 like the firing pin, the extractor or the
9 ejector, are moved across a cartridge
10 case, and these are referred to as
11 striated toolmarks.

12 "In addition, the inner barrel of the gun
13 imparts rifling on the bullet. And
14 specifically, the lands make the
15 depressed land impressions and the
16 grooves make the raised groove
17 impressions, and a left to right twist is
18 imparted on the bullet depending on the
19 direction of the lands and grooves.

20 "Firearm toolmarks are associated with the
21 weapons' class, sub-class and individual
22 characteristics.

23 "The class characteristics are family
24 resemblances which will be present in all
25 weapons of the same make and model.

1 "Examples of class characteristics include
2 the bullet's weight, caliber, the number
3 and the width of the lands and grooves in
4 the gun barrel and the twist.

5 "Class characteristics that cause
6 toolmarks on a spent cartridge case
7 includes the caliber, the type of breach
8 face and the type of firing pin.

9 "Sub-class characteristics are produced
10 incidental to manufacture and can arise
11 from a source which changes over time;
12 and therefore, may be present on a group
13 of guns within a certain make or model,
14 such as those manufactured at a
15 particular time and place.

16 "An example of sub-class characteristics
17 is a rifling tool that imparts similar
18 toolmarks on a number of barrels being
19 modified either through or with the use
20 of refinishing.

21 "The individual characteristics are random
22 imperfections produced during manufacture
23 or caused by accidental damages which are
24 unique to that object and distinguish it
25 from all others.

1 "However, non-unique marks may compromise
2 individual characteristics, and wear and
3 tear cause individual characteristics to
4 change over time to some extent.

5 "Thus, the toolmarks made on a bullet or
6 cartridge casing include marks imposed by
7 all weapons of that make and model that
8 fired the ammunition, which are class
9 characteristics; marks common only to a
10 subset of that class, which are called
11 sub-class characteristics; and marks
12 unique to that weapon that fired the
13 ammunition, which is called individual
14 characteristics.

15 "The firearms toolmark examiners will not
16 declare a match based on class
17 characteristics and they endeavor not to
18 make a match based on sub-class
19 characteristics. Instead, they make a
20 match based on individual
21 characteristics.

22 "At the base of firearms identification is
23 the theory that based on the
24 correspondence among toolmarks, a firearm
25 examiner can discern matches among

1 bullets, cartridge casings and their
2 weapons by origin, by using a comparison
3 microscope to compare ammunition
4 test-fired from a recovered gun, with
5 spent ammunition recovered from a crime
6 scene.

7 "Firearm and toolmark analysis rests on
8 the twin assumptions that the surface
9 contours of every gun are unique and that
10 every time the gun is fired some of those
11 unique markings, along with the markings
12 caused by the act of firing itself, are
13 transferred to the shell case and bullet,
14 leaving a distinctive pattern on each of
15 them.

16 "A firearms examiner presented with a
17 handgun and spent cartridge cases will
18 test-fire the weapon using the same type
19 of ammunition as was recovered in this
20 case.

21 "The examiner will look at the test-fired
22 cartridge case and the recovered
23 cartridge case simultaneously through an
24 instrument called a comparison
25 microscope, which is necessary to overlay

1 the images of two shell casings.

2 "This microscope was first put to use in

3 1925. And the comparison microscope

4 allows the examiner to compare tiny

5 markings left on the two cartridge cases.

6 "In theory, if the test cartridge case

7 cartridges and the recovered cartridges

8 are fired from the same gun, the examiner

9 will see sufficient patterns of matching

10 marks leading to the result as conclusive

11 as fingerprints.

12 "The examiner can make an identification

13 of the components, concluding that they

14 came from the same source; and an

15 elimination of the components, concluding

16 that they did not come from the same

17 source; and inconclusive, meaning that

18 there is not enough evidence to identify

19 whether the components either did or did

20 not come from the same source.

21 "In the parlance of firearms examiners,

22 'if there is sufficient agreement to make

23 an identification, a firearms examiner

24 often states that the chance of another

25 firearm could have made that mark is a

1 practical impossibility.'

2 "It is clear that a perfect correspondence
3 between the lines on a test-fired
4 cartridge and the evidence recovered from
5 the scene is impossible. In the real
6 world there is no such thing as a perfect
7 match.

8 "Thus, according to the AFTE, A-F-T-E, a
9 match exists when the unique surface
10 contours of toolmarks, of two toolmarks,
11 are in sufficient agreement.

12 "Sufficient agreement is defined as the
13 terms of the significant duplication of
14 random toolmarks.

15 "And an agreement is significant when it
16 exceeds the best agreement demonstrated
17 between toolmarks known to have been
18 produced by different tools and is
19 consistent with an agreement demonstrated
20 by toolmarks known to have been produced
21 by the same tool.

22 "Put in another way, those who subscribe
23 to the AFTE theory of toolmark
24 identification, sufficient agreement
25 exists between toolmarks means that the

1 likelihood that another toolmark could
2 have made that mark is so remote as to be
3 considered a practical impossibility.

4 "The AFTE acknowledges that the
5 interpretation of individualization and
6 identification is subjective in nature,
7 founded on scientific principles and
8 based on the examiner's training and
9 experience. There is no universal
10 agreement as to how much correspondence
11 exceeds the best known non-matching
12 striations.

13 "In an effort to bridge the gap in the
14 subjective process the AFTE has
15 established standards of intellectual
16 rigor.

17 "And the accepted methodology
18 mandates:

19 "One, the documentation of the reasons for
20 concluding that there is a match in a
21 particular examination, which could
22 include diagrams, photographs or written
23 descriptions.

24 "And two, peer review, which means
25 basically another person would look at it

1 for a second opinion.

2 "And that the case record must demonstrate
3 or contain documentation of observations
4 that serve as a basis for a reported
5 conclusion. The laboratories are
6 afforded latitude in establishing how
7 this should be accomplished.

8 "At a minimum, the documentation must
9 include interpretable depictions or
10 descriptions of the agreement or
11 disagreement of an individual and/or
12 sub."

13 Let me start again.

14 "Descriptions of the agreement or
15 disagreement of the individual and/or
16 class characteristics -- to the extent
17 that another qualified firearm and
18 toolmarks examiner, without the benefit
19 of evidence itself, can review the case
20 record, understand what is compared and
21 evaluate why the examiner arrived at the
22 reported conclusion -- the case record
23 must clearly describe or label which
24 items are depicted."

25 And that's basically what firearms is, and

1 how it works.

2 The standard I must look at is the
3 Frye-Reed Standard, and it's the test in Maryland
4 for determining whether expert testimony is
5 admissible.

6 This name is derived from two cases; Frye
7 v. United States, where the standard of general
8 acceptance in the relevant scientific community was
9 first articulated; and Reed v. State, which is at
10 283 Maryland 374, where Maryland adapted the same
11 standard. In general, acceptance means just that,
12 the answer cannot vary from case to case.

13 For this reason, when the Frye test is at
14 issue it becomes the threshold question of
15 admissibility to be resolved as a matter of law
16 before the Court exercises discretion in applying
17 all of the criteria of a particular proffered
18 expert.

19 The answer to the question about the
20 reliability of a scientific technique or process
21 does not vary, according to the circumstances of
22 each case.

23 And in looking at this issue, and
24 Frye-Reed, Judge Graeff, G-R-A-E-F-F, of the Court
25 of Special Appeals, in Devon Markham V. State -- and

1 that's M-A-R-K-H-A-M -- decided on November 25th,
2 2009, and stated the law, in Reed.

3 And the Court of Appeals stated that:

4 "With regard to expert testimony, based
5 on the application of new scientific
6 techniques, it is recognized that prior
7 to the admissibility of such testimony it
8 must be established that a particular
9 scientific method is itself reliable."

10 The Court adopted the tests set forth in
11 Frye v. United States, that a scientific method is
12 deemed reliable when it has gained general
13 acceptance in the particular field in which it
14 belongs.

15 The Court of Appeals subsequently
16 clarified that novel scientific evidence may become
17 admissible either by; one, the satisfaction of the
18 general acceptance tests set forth in Reed, or by
19 statute, which refers to DNA.

20 There is no statute in this case,
21 therefore, the issue on appeal involves general
22 acceptance.

23 In Reed the Court made it clear that;
24 "A hearing is not always required to
25 establish general acceptance."

1 And I'm quoting the Court of Special
2 Appeals, or Court of Special Appeals.

3 On occasion, when the validity and the
4 reliability of a scientific technique may be so
5 broadly and generally accepted in the scientific
6 community that a Trial Court may take judicial
7 notice of its reliability, such as commonly in the
8 case today with regard to ballistics tests,
9 fingerprint identification, blood tests and the
10 like; it is clear, in my research, that Maryland
11 courts have traditionally recognized ballistic tests
12 and ballistic testing.

13 And according to Judge Grimm, Magistrate,
14 in Judge Grimm and the United States versus Mouzone,
15 M-O-U-Z-O-N-E, in the District Court of Maryland, in
16 his research he found that firearm toolmark
17 identification testimony is admissible in every
18 American jurisdiction.

19 Thirty-seven jurisdictions have approved
20 it by Appellate opinion, and there's been no
21 reported decision ever excluding firearms
22 identification expert testimony under Dolbart.

23 And in United States V. Foster, found at
24 300 F-Supplement, 375, District Court of Maryland,
25 204, it noted the general reliability of the science

1 of ballistics, and ballistics evidence has been
2 accepted in criminal cases for a year, or for years.

3 And he finds that, nonetheless, Federal
4 Courts, without exception, have admitted firearms
5 toolmarks, often without even applying the Dolbart
6 factors.

7 In my research, I've only found one case
8 which denied the use of ballistics testimony, and
9 that was where -- the case where the Court
10 determined that the examiner himself, or herself, I
11 don't know who it was, was determined to be not
12 qualified to testify as an expert. It had nothing
13 to do with the process.

14 Ballistic pattern matching started in the
15 early 1900s. It has been used in every state and
16 countries all across the world. It is taught at
17 major universities, including the University of
18 Maryland.

19 The AFTE Association is made up of
20 thousands of members, and it is unanimous in its
21 use. Notwithstanding the NRC Forensic Science
22 Report, which specifically states it was not trying
23 to take a position on the legal admissibility,
24 ballistic imaging is clearly generally accepted in
25 the relevant scientific community.

1 There are dissenters, but they are in the
2 vast majority, and Frye-Reed only requires general
3 acceptance, not universal acceptance. But this does
4 not end the discussion.

5 Once I determine Frye-Reed -- and I'm
6 referring to Maryland Rule 5-702.

7 And for expert testimony to be admitted in
8 the form of opinion, or otherwise, if the Court
9 determines that the testimony will assist the trier
10 of fact to understand the evidence or to determine a
11 fact in issue in making the determination, the Court
12 shall determine:

13 One; whether the witness is qualified as
14 an expert by knowledge, skill, experience, training
15 or education.

16 Two; the appropriateness of expert
17 testimony in a particular subject.

18 And three; whether there's a sufficient
19 factual basis that exists to support the expert's
20 testimony.

21 One: Whether the witness is qualified as
22 an expert by knowledge, skills, experience, through
23 training or education.

24 In this case, Terry Eaton has 35 years of
25 experience as a police officer, 20 as an evidence

1 technician and 15 years as a toolmarks examiner.

2 He has a Bachelor's of Science degree from
3 the University of Maryland; he has over 3,500 hours
4 of training at AFTE; he's attended over 30
5 specialized skills trainings in the field; he's done
6 factory visitations; he's done thousands of
7 examinations; he's been recognized as a
8 distinguished life member of AFTE; he spent six
9 years on the board of directors of AFTE; he's worked
10 on AFTE's training manual; he's been published, I
11 think, three times, and has testified over 140 times
12 as an expert. Clearly, he has been qualified as an
13 expert before.

14 And when I looked back at a quote from
15 Mr. Tobin, when I was asking questions of Mr. Tobin,
16 and I asked him; "Doesn't it depend on, really, the
17 variable of the expertise of the examiner?" And he
18 said, "Certainly. That is the huge issue."

19 Two: The appropriateness of an expert's
20 testimony and the subject.

21 Here it is appropriate. Identification is
22 an issue. Identifying the bullet and the weapon is
23 a key element in the case.

24 It is clear to me that the jurors cannot
25 make the identification by looking at the bullet.

1 It's not like guessing that it's subject to a
2 layperson's testimony. You need the expert's
3 opinion, one way or the other. I found it is a
4 recognized procedure and it would generally assist
5 the jury.

6 Three: Was there a sufficient factual
7 basis?

8 Here a gun was recovered and bullets was
9 recovered. Dr. Hamby, who is a recognized expert,
10 and who has testified as an expert over 350 times,
11 and was a former head of the AFTE, stated that the
12 procedure to follow in AFTE was a checklist of
13 general procedures, and that Mr. Eaton followed that
14 procedure.

15 He fired the Smith-Wesson bullets into the
16 water, recovered the test-fired bullets, checked
17 them to make sure he could identify the known
18 bullets, looked at the known with the unknown under
19 a comparison microscope, identified the class, the
20 sub-class and individual characteristics, and came
21 to his conclusion.

22 He checked IBUS, I-B-U-S, the regional
23 database, and came to his conclusion, utilizing the
24 sufficient agreement standard as mandated by AFTE.

25 He followed the AF/S -- the S is the

1 letter S -- dash clad, C-L-A-D, procedure. He took
2 photomicrographs. He took bench notes. The bullets
3 are still available for comparison. He indexed the
4 markings and the location of the identification.

5 He followed the procedures, he testified,
6 of the Prince George's County Police Department, had
7 his conclusions peer-reviewed, and later actually
8 they were reviewed by Dr. Hamby. And according to
9 his testimony, he cooperated with the Defense expert
10 to show them what was there.

11 I believe there is a sufficient factual
12 basis under 5-702 for him to testify.

13 The real issue, to me, in the case, and it
14 was pretty clear to me from the beginning, because I
15 was asking questions, is what if there -- well,
16 clearly, I believe that the experts are qualified.

17 And clearly, I believe that it helps the
18 jury; what is the standard that the expert should be
19 allowed to testify to. And that's where the real
20 agreement, or disagreement, has been over the years.

21 The Defense's position is, there's an
22 error rate that you can't individualize to the
23 exclusion of all other firearms, and that is not
24 proven; and that AFTE standards are too vague to
25 give a conclusion; and that there is the fact that

1 no uniqueness has been proven and that it's only
2 been proven in DNA testing.

3 But I find and believe that pattern
4 matching, as stated, has been consistently allowed
5 in Courts. It's been allowed in fingerprints, tire
6 prints, bite marks, et cetera.

7 But what is the proper degree of
8 certainty, is the key question. I have read the
9 cases cited from respected judges, all of which have
10 allowed the testimony in, from more likely than not,
11 to consistent with, to a match.

12 And my belief is this: I believe that it
13 is the more likely than not, is not the correct
14 standard; i.e. -- well, I've lost my place. Well,
15 let me start over.

16 The standards go from the more likely than
17 not, to consistent with, to a reasonable degree of
18 ballistics certainty; i.e., if it matches, is it
19 unique and is the uniqueness proven.

20 I was particularly interested in what the
21 experts who testified said. Mr. Tobin is not a
22 firearms examiner, but is a well-qualified person to
23 testify, and is well-respected in his field.

24 And I also keep in mind that this is a
25 forensic science because it involves a human

1 interpretation of clues and facts, or observations,
2 as opposed to analytical studies.

3 All of the experts acknowledge there are
4 studies that have been conducted, such as the
5 Brunder [phonetic] study of 10 consistent, or 10
6 consecutively manufactured guns. They disagree with
7 what the conclusions mean.

8 The key in this case is unique and cannot
9 be proven. And can not be proven. And can you
10 prove something empirically? Or if you do the tests
11 a number of times and the result keeps coming back
12 the same, can you extrapolate and prove it that way?

13 Mr. Tobin believes that the inferences are
14 not justifiable. And in Mr. Tobin, I kept asking
15 questions, because I truly was intrigued by what he
16 said. And I've quoted him, because I was glad that
17 I had the transcript.

18 He said, "I don't even challenge the
19 premises of uniqueness. I do not challenge the
20 premise of uniqueness, per se."

21 He says, "I don't believe that the NRC
22 does either, only that it hasn't been proven to the
23 uniqueness of all, of the firearms."

24 So even the Defense expert says he doesn't
25 challenge the premise of the uniqueness.

1 I asked him this question about a
2 qualified expert with three guns and bullets, could
3 they match the bullet to a gun.

4 He said yes, but that he believed that the
5 testimony would -- he would have no problem saying
6 that it was consistent with, but that he believed
7 that you couldn't say to the exclusion of all other
8 firearms.

9 But Mr. Tobin admitted he used a similar
10 theory of pattern matching in two highly-publicized
11 incidents, where a civil rights attorney was killed
12 with a package bomb, and Judge Robert Vance was
13 killed with another package bomb, and he took the
14 nails of that bomb and matched them to five dies of
15 a header bench.

16 So if you can clearly match them, what
17 does it all mean? All of the experts acknowledge
18 studies have been done, but disagree with the
19 conclusion.

20 Dr. Hamby testified to hundreds of studies
21 of uniqueness of consecutively manufactured
22 firearms, which examiners successfully matched to
23 guns. And he said there was up to 450 studies that
24 have been done. There was not one study given to me
25 that shows that.

1 And I asked. And actually, I think that I
2 had asked a couple of questions on this; has there
3 ever been any study or anything to show that they
4 could -- that two guns have the same pattern, and
5 nobody had that, through all the years.

6 Mr. Eaton testified that he was aware of
7 50 validation studies which showed no two guns have
8 the same markings.

9 Hamby and Eaton testified that in the
10 IBUS, and I always forget it, the NIMBUS system
11 database, there's over 100,000 images, and there's
12 no two guns that have the same markings.

13 Every expert, including Mr. Tobin, have no
14 personal knowledge of themselves testifying of two
15 guns with the same markings.

16 In the documents provided and the evidence
17 given to me of the numerous studies -- but I had
18 probably about 30 studies listed, but nowhere near
19 the 450 testified by Dr. Hamby.

20 But I have -- and I've read the 1998
21 Brunder [phonetic] study, which showed 10
22 consecutively manufactured Ruger pistols, shots were
23 fired, sent to 30 accredited labs and 30
24 non-accredited labs, fired, and there were no errors
25 of wrong mismatches, but 15 bullets were marked

1 unknown.

2 There was a Hamby study of 10
3 consecutively rifled Ruger 9-millimeter pistols, 240
4 test sets were produced, bullets fired from
5 consecutively rifled barrels, and they represent the
6 best example of the best known non-match.

7 They were sent to 520 participants from 21
8 countries, using different equipment, who
9 successfully matched 7,792 of a possible 8,000.
10 There were no mismatches, meaning no
11 false-positives.

12 There was a study of 617, 9-milimeter
13 shots from a Glock that were fired, and the matches
14 were successful. It's been proven to be
15 reproducible time after time after time.

16 There was a 1983 study which was provided
17 to me of 501 shots fired from a Raven model P-25,
18 and they were successfully able to match all shots
19 to the gun.

20 At the 2001 American Academy of Forensic
21 Science meeting at Seattle -- and I forget the
22 gentleman's name -- he fired 4,000 cartridges from a
23 Markov [phonetic], looked at every hundredth bullet
24 and concluded that the 4,000th bullet was
25 identifiable to the first.

1 And I was -- in the documentation, there
2 was footnotes of night-studies comparing them to
3 that.

4 When I looked at the studies which were
5 mentioned about the error rate, every time they
6 concluded the error rate they included inconclusive
7 as an error. I don't see that, if it's
8 inconclusive, that's not a match, which is not
9 applicable in this case. As stated, once again, no
10 expert ever testified of personal knowledge of any
11 mismatch.

12 In all of the studies, whatever these
13 error rates are, whether you call them inconclusive
14 or not, they seem to be a very low percentage.

15 And it all goes back to the questions that
16 I think I asked Mr. Tobin probably in the first hour
17 of his questioning, which is; how many, how much is
18 enough, when is there enough to make the
19 extrapolation? He said that NRC hasn't determined
20 what the threshold is, but he had no answer.

21 I am aware, based on personal knowledge in
22 trying a number of cases, there are millions of guns
23 out there. I have no idea. Millions of guns across
24 different countries, different rounds, different
25 calibers. I don't know whenever -- what is, enough

1 is enough.

2 Every test that we have, it shows that
3 every gun has been able to be reproduced back, that
4 every -- when you have it, they can match it to the
5 individual gun, and there's been no testimony at any
6 time that there was a mismatch.

7 I have seen cases where two experts
8 disagree, both using the same standards as a -- or
9 using the same standard; and in particular, in the
10 degree of medical certainty.

11 In sitting up here for almost -- a little
12 over two years now, I have seen automobile accidents
13 where two well-respected doctors, one gets up there
14 and basically says that the plaintiff is injured for
15 life and the other doctor then gets up and says it's
16 a soft-tissue injury, and both are totally
17 admissible in Court.

18 I believe, and clearly I believe, that
19 more likely than not is way too low of a standard.
20 But I also believe that, to the exclusion of all
21 firearms, is not the proper standard either.

22 And what I believe the standard is, and
23 that's what I'm going to hold everybody to, and I
24 will prohibit the expert from testifying to any
25 degree of conclusion, is 98 percent or to the

1 exclusion of all other firearms, because I do not
2 think that that is probable.

3 I believe the proper standard is that the
4 expert can say, in his opinion, that that particular
5 cartridge or bullet was fired from that particular
6 firearm to a reasonable degree of practical
7 certainty in the field of ballistics or the
8 ballistics field, and that's the conclusion that I'm
9 going to give. I just don't want anything about, to
10 the exclusion of all other firearms.

11 MR. ADAMS: I don't think that that would
12 be --

13 THE COURT: But I'm just -- just to make
14 sure.

15 MR. ADAMS: Your Honor, how about, to a
16 reasonable degree of practical certainty in the
17 field of ballistics?

18 THE COURT: Yeah. Or the ballistics
19 field.

20 MR. ADAMS: Thank you.

21 THE COURT: So Monday, at 9:45, we'll pick
22 a jury. We'll finish by Thursday, you think, with
23 three full days of testimony?

24 MR. ADAMS: I think so.

25 MR. BEACH: I hope so.

1 THE COURT: I mean, we can always bring
2 the jury back on Friday for deliberations.

3 MR. BEACH: Just as a housekeeping matter,
4 my Friday -- and part of this is my fault in
5 scheduling, but I have --

6 THE COURT: Well, we won't take any live
7 testimony at all on Friday, if we can. But I'm
8 saying, if the jury can deliberate we'll let them
9 deliberate on Friday.

10 MR. BEACH: As long as Your Honor gives me
11 cover for what appears to be --

12 THE COURT: Believe me, I've been in 10
13 courtrooms myself.

14 MR. BEACH: -- six motions and three
15 violations.

16 THE COURT: We'll get it done. I mean,
17 I'll make sure we'll be done.

18 And I just want to make sure that this
19 gentleman has clothes, so if there's a problem, if
20 the jail gives him a problem, just bring clothes to
21 me at 8:30 or 9:00 and I'll make sure he gets
22 changed, because I've been to the jail myself, and
23 they've refused to take the clothes, and I've been
24 there.

25 Anything else? We've just got some 401

1 motions?

2 MR. BEACH: Yes. 401 and 403 and 404
3 stuff.

4 THE COURT: Okay. I'll see you guys.
5 We're in 3400. I'll try to get started as soon as I
6 get done with that three-judge panel.

7 (Proceedings Concluded)

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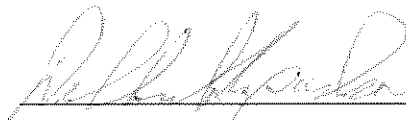
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REPORTER'S CERTIFICATE

1
2
3 I, Debbie K. Klapaska, an Official Court
4 Reporter for the Circuit Court of Prince George's
5 County, Maryland, do hereby certify that I
6 stenographically reported the proceedings in the
7 matter of State of Maryland versus Henry
8 Whittingham, CT08-1682X, in the Circuit Court of
9 Prince George's County, Maryland, on November 16th,
10 2009, before the Honorable Nicholas E. Rattal,
11 Associate Judge.

12
13 I further certify that pages 1 through 34,
14 constitute the official transcript of the
15 proceedings as transcribed by me from my
16 stenographic notes to the within typewritten pages
17 in a complete manner to the best of my knowledge and
18 belief.

19
20 In witness whereof, I have affixed my
21 signature, this 22nd day of February, 2010.

22
23 

24 Debbie K. Klapaska
25 Official Court Reporter