THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA Alexandria Division

UNITED STATES OF AMERICA,

Plaintiff,

v.

CRIMINAL ACTION

WILFREDO MONTOYA-BAIRES,

1:05 CR 478

Defendant.

REPORTER'S TRANSCRIPT

JURY TRIAL

VOLUME 8

Monday, September 25, 2006

BEFORE:

THE HONORABLE T.S. ELLIS, III

Presiding

APPEARANCES: OFFICE OF THE UNITED STATES ATTORNEY

BY: PATRICK STOKES, AUSA MORRIS PARKER, JR., AUSA DAVID W. TOOKER, AUSA

For the Government

NINA J. GINSBERG, ESQ. LANA MARIE MANITTA, ESQ.

For the Defendant

MICHAEL A. Rodriguez, RPR/CM/RMR Official Court Reporter USDC, Eastern District of Virginia Alexandria, Virginia

1		INDEX	ζ		
2	PRELIMINARY PROCEEDINGS				3
3	WITNESS (Government)	DIRECT	CROSS	REDIRECT	RECROSS
4	Wilson deJesus Munoz	20	32	60	
5	(Continued)	68	m 0		
6	Frances P. Field	67	73		
7	Gary C. Arntsen	76	105	117	
8	(Review of exhibit	s)			
9	(Government rests)				
10	RULE 29 MOTIONS				126
11	FURTHER PROCEEDINGS				141
12	(Count regered)				
13	(Court recessed)				
14					
15					
16					
17					
18					
19					
20		•			
21					
22					
23					
24					
25					

1	ATTORNEY PARKER: Nothing further.
2	THE COURT: All right.
3	Thank you. You may step down.
4	(Witness excused)
5	THE COURT: Call your next witness.
6	ATTORNEY STOKES: Your Honor, the government
7	calls Gary Arntsen.
8	(Pause)
9	THE COURT: Come forward and take the oath,
10	please, sir.
11	(Witness sworn)
12	THE WITNESS: Good afternoon.
13	THE COURT: All right. You may proceed,
14	Mr. Stokes.
15	ATTORNEY STOKES: Thank you, your Honor.
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17	GARY C. ARNTSEN, having been duly sworn, was
18	examined and testified as follows:
19	
20	DIRECT EXAMINATION
21	BY ATTORNEY STOKES:
22	Q. Would you please introduce yourself to the jury.
23	A. Gary Charles Arntsen. I will spell my last name for
24	you: A-r-n-t-s-e-n.
25	Q. How where are you employed?

1 I'm a forensic scientist, employed by the Commonwealth A. of Virginia in the Fairfax Forensic Laboratory. 2 Where is that. 3 0. That is in Fairfax, Braddock Road. 5 ATTORNEY STOKES: You did say Fairfax. Thank you, sir. 6 BY ATTORNEY STOKES: How long have you been doing that? 9 I have been employed in Fairfax Laboratory for the 10 last, approximately 14, 14 and a bit years. 11 Q. What do you do for the Fairfax Laboratory? 12 I deal mainly with the examination of firearms, 13 ammunition components, and various other items that are 14 submitted to the forensic laboratory for examination by 15 various agencies, government agencies within the 16 Commonwealth of Virginia. 17 What sorts of things do you examine firearms for? 18 I examine firearms to determine whether they are in 19 mechanical operating condition; in other words, whether 20 those firearms are working properly. 21 I thereafter will test fire those firearms, 22 recover the components, the firing of the firearm -- in 23

24

- 1 items that have been submitted by the various agencies to
 2 the laboratory.
- Q. Prior to your work with the Fairfax Lab, where did you work?
 - A. I was employed in South Africa. I have also worked in various places throughout the world, including places such as the BK, and Wiesbaden in Germany, as well as the Metropolitan Police Department in London, and various other agencies, East to West Coast of the United States.
- 10 Q. What did you do for those agencies?
- A. Again, primary evaluation, firearm-type evaluation
 with regard to firearms examination, whether that be
 computer related, system analysis, and that type of
 information.
 - Q. How long, in total, have you been involved in the examination of firearms and ammunition?
- 17 A. For the last, approximately, 26 years.
- 18 Q. What's your education?

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- 19 A. I have an equivalent bachelor's degree in police science.
 - Q. Have you had any training in firearms and ammunition examination?
- A. Yes, I have. I have successfully completed the

 Association of Firearm and Tool Mark Examiners Training

 Manual, which is an in-depth, two-year course involving

- firearms examination and the component examination, and
 history of firearms; as well as, this examination -- this
 training involves travel to various firearm and ammunition
 manufacturing institutes, and I have done that for many
 years.
 - Q. Have you visited firearms manufacturers within the United States?
- A. Oh, yes, a large number; the majority of the major
 g firearm manufacturing institutes. I have also visited
 10 European companies, such as H&K, Sig-Sauer, and various
 other firearms places throughout the world.
- Q. Have you received any certifications in the examination --
- **14** A. Yes.

- Q. -- of firearms and ammunition?
- A. I am certified by the Commonwealth of Virginia in thisparticular field.
- 18 Q. And have you received any ongoing training in order to
 19 maintain your certification?
- 20 A. Yes, I have.
- Q. What sort of ongoing -- how frequently do you have to go to ongoing training?
- 23 A. It involves yearly meetings, involving associations of
 24 firearms examiners. And these are in various states
 25 throughout the United States. We get together, discuss the

- latest developments in the field, as well as attending major trade shows where firearm, the newest firearm technology is displayed and sold.
 - Q. And, sir, are you also a firearm enthusiast?
- A. Oh, most definitely, yes.

- Q. And have you -- what -- what have you done as an enthusiast to expand your knowledge of firearms and ammunition?
 - A. Well, clearly, I am involved in Department of Justice type training of various police agencies throughout, throughout the world. I have just recently returned from Kosovo, where I was assisting in the establishment of a forensic laboratory in Kosovo.

I have traveled to other European, eastern

European countries, to look at their forensic laboratories

and analyze their particular problems, and attempt to assist

them where I can.

- Q. Have you written in this field?
- A. Yes, I have.
- 20 Q. Have you been published?
- **A.** Yes, I have.
- Q. Now, sir, approximately how many firearms have you examined for -- in the course of your 26 years, I believe you said?
 - A. Yes. Many thousands of firearms. The total number is

1 just too many for me to remember, but definitely many thousands of fire arms. 2 How many bullets have you examined during that time? 3 Every firearm that I examine in the course of my work, I will test fire. I will analyze those bullets, look at 5 those particular bullets or fired cartridge components under the comparison microscope. So for every firearm that I examine, I examine bullets and cartridge cases related to 9 those particular firearms. 10 Now, in addition to firearm and ammunition, do you Q. 11 also analyze objects with gouge marks on them? 12 I examine anything that could potentially be 13 contacted by a firearm or the ammunition components, whether 14 it be motor vehicles, drywall, wooden implements, the floor. Anything that a bullet could pass through, I have, I've 15 16 general examined. 17 Have you been qualified in the past, sir, as an expert 18 in firearm and tool mark examination? 19 A. Yes, I have. 20 Q. And approximately how many times in State Court? 21 Α. Over a hundred times in State Court. 22 How about federally? Q. 23 A. More than a dozen. 24 ATTORNEY STOKES: With the assistance of the court security officer, I would ask you to take a look at 25

1	binder two, Government's Exhibit 6-2.		
2	THE WITNESS: (Complies).		
3	BY ATTORNEY STOKES:		
4	Q. What is that, sir?		
5	A. This is a copy of my CV.		
6	ATTORNEY STOKES: Your Honor, we would move 6-2		
7	into evidence at this time.		
8	ATTORNEY MANITTA: No objection, your Honor.		
9	THE COURT: It's admitted.		
10	ATTORNEY STOKES: Your Honor, at this time we		
11	would tender Mr. Arntsen as an expert in the area of firearm		
12	and ammunition examination.		
13	ATTORNEY MANITTA: There is no objection.		
14	THE COURT: All right.		
15	Ladies and gentlemen, once again I am going to		
16	permit this witness to be asked his opinion, his expert		
17	opinion. However, the extent to which you accept him and		
18	his opinions as expert opinions are matters left entirely to		
19	you. And I'll give you further instructions at the end of		
20	the case.		
21	Proceed.		
22	ATTORNEY STOKES: In that same binder, if you		
23	would take a look at 7-20 and 7-21, please.		
24	THE WITNESS: (Complied).		

1 BY ATTORNEY STOKES: What is 7-20? 2 0. This is an illustration showing a cartridge and the 3 components of the firing of this particular cartridge. have the upper portion, which we call a bullet, which 5 6 is the --7 ATTORNEY STOKES: If I could interrupt you just 8 for a second. 9 Your Honor, we would move 7-20 into evidence, 10 and ask to publish it for the jury. 11 THE COURT: Any objection? 12 ATTORNEY MANITTA: No objection. 13 THE COURT: All right. You may do so. BY ATTORNEY STOKES: 14 15 Sir, if you would -- looking at the screen next to Q. 16 you, if you could identify the component parts of a 17 cartridge. 18 Yes. What we have is a bullet, over here 19 (indicating). This is the projectile that is propelled from 20 the muzzle of the firearm in the direction in which the 21 firearm is pointed. 22 We have the, in this particular case 23 (indicating), the cartridge case, this particular area over 24 here. And in the case of it being fired, we would call it a 25 fired cartridge case.

1 And in the case of a semiautomatic firearm, we would have this particular cartridge case being ejected from 2 the ejection port of the firearm, and found in proximity of 3 the firing of the firearm. The bullet would be propelled in the direction 5 in which the firearm was aimed, and the cartridge case would б be ejected from the ejection port of the firearm. 7 If you could press the lower 8 ATTORNEY STOKES:

ATTORNEY STOKES: If you could press the lower right-hand corner of that screen, to clear the screen, sir.

THE WITNESS: (Complies).

BY ATTORNEY STOKES:

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- Q. What is a primer?
- A. The primer is this silver, silver part in the center of this head of the cartridge case. It is the area we have -- in this particular case, we have -- the primer is marked "R-P," and we have "45 auto" underneath.

The primer is the center part of this photograph, and it is the area which the firing pin strikes the -- the firing pin of the firearm strikes this particular area, the primer --

- Q. Now, sir --
- **A.** -- the initiator.
- Q. Now, sir, this photograph of this cartridge, is this a photograph of a cartridge you examined in this case, or is this just illustrative?

1	A. This is just a demonstrative photograph.
2	ATTORNEY STOKES: Thank you.
3	If you would clear the screen, please.
4	THE COURT: Well, this 7-20 is just a
5	demonstrative evidence. It's not admitted in the record of
6	this case, is it?
7	ATTORNEY STOKES: Your Honor, we did move it
8	in, but it is a demonstrative exhibit. That's correct.
9	THE COURT: All right.
10	Move on.
11	BY ATTORNEY STOKES:
12	Q. What is 7-21?
13	Do you have 7-21 in front of you?
14	A. 7-21, yes; but there is nothing on the screen.
15	THE COURT: Go on.
16	BY ATTORNEY STOKES:
17	Q. Sir, what is 7-21?
18	A. 7 dash is a it's an illustration of a bullet, an
19	unfired bullet, together with a fired bullet, as well as a
20	picture looking down the barrel of a firearm.
21	In other words, if you look down the barrel of
22	a firearm that was rifled, you would see something that
23	looks similar to this, this particular illustration, of the
24	high and low spots of
25	ATTORNEY STOKES: If I can interrupt you for a

1	second.
2	Let me first your Honor, may I publish this,
3	so
4	(Simultaneous discussion).
5	THE COURT: Yes.
6	This
7	ATTORNEY STOKES: the jury
8	THE COURT: is demonstrative
9	ATTORNEY STOKES: can follow
10	THE COURT: as well.
11	ATTORNEY STOKES: Thank you.
12	THE COURT: It's not admitted into the record,
13	but it's a demonstrative piece of evidence.
14	You won't have this in the jury room with you.
15	It's just used to demonstrate or to illustrate the witness'
16	testimony about these matters.
17	Proceed.
18	BY ATTORNEY STOKES:
19	Q. Sir, if you could point out how a fired bullet differs
20	from an unfired bullet
21	A. Yes. What we
22	Q on this exhibit?
23	A. If we look at this particular item, that is an unfired
24	bullet. In other words, it is rifled. It has been removed
25	from the cartridge case, but other than that it has not been

fired.

If we look at the bullet on the -- the fired bullet on the right-hand side over here, we will see markings on its surface. These particular markings are lans and groove markings which would be imparted by the surface of the barrel through which this bullet was fired.

ATTORNEY STOKES: If you could clear the screen, please.

THE WITNESS: (Complies).

If we look at the barrel at this particular illustration, we'll see -- we'll be looking down the barrel, and in this particular case, this particular item is what we call a lans. It would create a lans impression on the bullet when it was fired. We have a groove, which would be in this particular area, and it would create a groove impression on the bullet, through which it had been fired. These particular markings in the lower fired bullet illustrative are the lans and groove markings on this particular bullet.

- Q. Why do firearm barrels have lans and grooves?
- A. Well, as we can see from the illustration, bullets themselves are elongated. They are not in the round, ball-type form. So to keep them pointed forward and to enable them to be fired accurately and maintain a nose-forward profile, you are required to impart spin to

them.

23.

And in this particular case, we have lans and grooves in the rifle barrel of the firearm, which spiral.

And they spiral to the right-hand side in this particular case. And when the bullet is fired down the barrel, it is spun by these high and low spots, or lans and grooves, and that maintains the bullet in an accurate, nose-forward profile.

- Q. Now, sir, when you conduct an analysis of a bullet, how do you -- in a firearm, how do you determine whether a bullet was fired from a particular firearm?
- A. Primary -- the principle upon which I work is the principle that each and every firearm that is manufactured can produce unique and individual markings that are a common to that particular firearm, and only that particular firearm. In other words, the firearm has its own fingerprints, or it may produce its own fingerprint on the fired components that come into contact with the firing of this fired cartridge case.
- Q. What is a class characteristic?
- A. A class characteristic would be a measurable feature on the surface of the bullet that would enable me to discriminate between that bullet and another bullet.

A class characteristic is generally common to a number of firearms. First of all, we would look at the

caliber of that particular bullet, in other words, how big it was.

If that particular bullet was a nine-millimeter caliber bullet, then it wouldn't -- and it has rifling characteristics on it that are normal, then it wouldn't have been fired from a .45-caliber bullet (sic) or an 11-millimeter caliber firearm, because the bullet is of a different size.

So the nine-millimeter caliber versus a .45 caliber is a class characteristic.

Now, if we look at the surface of the bullet, the fired bullet, we have these lans and groove markings, which have, when you view them through a microscope, measurable features, and those measurable features are lan -- are what we call class characteristics.

They can also have an inclination, in other words, a spiral. If the bullet is fired through a firearm that has a right-hand twist, then the rifling markings on the bullet would have a right-hand inclination. If the spiral grooves that were cut into the surface of the barrel were inclined to the left, in other words, they turned to the left, then the markings on the bullet would have a left-hand inclination.

The left versus right is a class characteristic.

1	Q. And beyond the class characteristics, including the
2	lans and grooves, do you do do you conduct a microscopic
3	comparison of a bullet with the firearm?
4	A. Yes, I do.
5	The unique imperfections in the surface of the
6	barrel impart fine scratch marks to the surface of the
7	bullet. These fine scratch marks are unique to that
8	particular firearm. And those are the markings that I look
9	at to determine individuality.
10	Q. What do you look to, to determine whether a cartridge
11	case was fired in a particular firearm?
12	A. The fired cartridge case has come into contact with
13	various parts of the firearm. If you have a semiautomatic
14	firearm, you will have the firing pin coming into contact
15	with the primer. It leaves an impression in the primer
16	itself.
17	The bullet would be propelled from the muzzle
18	of the firearm, and fired cartridge case would be propelled
19	backwards against the portion of the firearm that retains it
20	within the chamber of the firearm.
21	This particular cartridge case, being softer
22	than the breech face of the firearm, would be impressed. In
23	other words, the breech face of the firearm would impress
24	itself against the fired cartridge case. Those are breech
25	face markings.

Other parts of the firearm that come into 1 contact with the fired cartridge case are the extractor, 2 which is the part of the firearm that pulls the cartridge 3 case from the chamber of the firearm, as well as the ejector, the portion of the firearm that ejects the fired 5 cartridge case from the ejection port of the firearm. б You also have circumferential markings around the body of the case, which we call chamber-type markings. 8 9 Any of those particular areas could be used to establish identity of the fired component. 10 Sir, in this case, did you examine a firearm, 11 Q. 12 cartridge cases and bullets? 13 Yes, I did. ATTORNEY STOKES: And with the assistance of 14 15 the court security officer, would you Take a look at 16 Government's Exhibit 4-4. 17 THE WITNESS: (Complied) I have previously 18 gone through these exhibits before court, and, yes, this is 19 the 4-4 Exhibit, firearm, that I have previously examined. 20 It's also my Item Number 137. 21 BY ATTORNEY STOKES: 22 And when you say -- by -- your item number, in other words, do you keep a log of -- with your own item numbers in 23 your examination notes? 24 25 A. That is correct.

When the -- when the firearm or the components are submitted to laboratory for examination, they are required to be itemized and packaged in specific manners. These items are allocated by the submitting agency. In other words, they would demarcate those particular items with an item number.

In this particular case, this particular

Exhibit 4-4 before the Court, was itemized as Item 137. And

I examined this particular firearm.

- Q. What kind of gun is that?
- A. Yes. It is a Star Fire -- Firestar class model. It is chambered for the nine millimeter Luger cartridge, and its serial number is 2130211, which is reflected, as well, in my particular report with regard to it.
- Q. Do you know where that gun was manufactured, sir?
- A. Yes, I do. In this particular case, it's a Star, as I have said, and it is made in Spain. It has unique markings on it, which we call proof markings, which indicate country of origin.

It also has markings on the firearm that indicate that it was imported into the United States by Interarms of Alexandria, Virginia. They are a company no longer in business, but they were not far from us, just down the road on the waterfront.

Q. Sir, did you test fire that weapon?

б

1	A. Yes, I did.		
2	Q. Describe what happened.		
3	I'm sorry, let me rephrase that.		
4	Describe what you did.		
5	A. What I did was load the magazine of the firearm with		
6	test fires. In other words, those these particular test		
7	fires no relationship to this particular firearm previously.		
8	I loaded these into the magazine, inserted the		
9	magazine into the butt of the firearm, and then closed the		
10	firearm and fired this particular firearm into a water tank,		
11	which allows me to recover the bullets, which are the		
12	projectiles that are propelled from the muzzle, in an		
13	undamaged form.		
14	It also ejected cartridge cases from this part		
15	of the firearm, which we call the ejection port, and I		
16	recovered those components, as well.		
17	The particular items, these particular tests		
18	that I fired in the particular firearm are thereafter		
19	recovered and used for comparative purposes.		
20	Q. What did you use them to compare to?		
21	I'm sorry.		
22	What did you compare those test fires to?		
23	A. I compared them to other items that had been submitted		
24	to the laboratory for examination. There was Item 9, Item		
25	10, as		

1 Q. Sir, I will go ahead and ask you to take a look at those now, then. 2 If you would take a look at Government's 3 4 Exhibit 1-1. 5 Yes. This is -- this particular item and the box that it was in bears my markings. I have previously looked at 6 7 It is also known as Item 9, and is the one fired it. 8 cartridge case. 9 And, sir, did you compare what's contained within 10 Government's Exhibit 1-1 to a cartridge case that was 11 eject- -- one of the test-fire cartridge cases that you fired? 12 13 That is correct. I compared it and found that it was 14 fired in this particular firearm -- in other words, Exhibit 15 4-4 before the Court -- and only this firearm. In other 16 words, this particular cartridge case was fired --17 Exhibit 1-1 was fired in Exhibit 4-4. 18 ATTORNEY STOKES: Your Honor, we would move 19 1-dash -- I'm sorry. I believe 1-1 is already in evidence. 20 BY ATTORNEY STOKES: 21 Would you take a look at Government's Exhibit 1-2, Q. 22 please. 23 What is 1-2? This is also a fired cartridge case which I have 24

previously examined. And it was submitted as Item Number

- 10. It has all my markings. And I have previously looked
 at it inside the packaging, and determined that it is the
 fired case that I previously examined.
 - Q. And, sir, did you make a determination as to whether that cartridge case contained in 1-2, whether it was fired from the handgun that's in Government's Exhibit 4-4?
- 7 A. Yes, I did.

- 8 Q. What did you determine?
- 9 A. I found that it was fired in 4-4, and no other10 firearm.
- 11 Q. If you would take a look at Government's Exhibit 1-4,
 12 please.
- 13 A. (Complied).
- 14 Q. What is that, sir?
- A. It is one, another fired cartridge case. It is a
 fired cartridge case that I have previously examined. And I
 also found that it had been fired in Government's Exhibit
 4-4, and no other firearm.
- Q. If you would take a look at Government's Exhibit 1-5,please.
- 21 A. This is also known as my Item Number 40, and it is a

 22 further, fourth, fired cartridge case, which I found to have

 23 been fired in Government's Exhibit 4-4, and no other

 24 firearm.
- 25 Q. Now, sir, did you also compare bullets that were given

- to you to in this case to the bullets that you test fired, or recovered after the test fire?
- 3 A. Yes, I did.
- Q. If you would take a look at Government's Exhibit 1-3,please.
- 6 A. (Complies).
- 7 Q. What is 1-3, sir?
- A. This is a nine-millimeter Luger fired bullet. It is
 also known as my item Number 14. And I found that this
 particular bullet was fired in Government's Exhibit 4-4, and
 no other firearm.
- Q. And, sir, I may have just missed this. What caliber
 bullet is that?
- 14 A. It's a nine millimeter Luger, fired bullet.
- Q. And the cartridge cases that you examined that you just discussed, what caliber are those cartridge cases?
- 17 A. Those are Remington brand, nine millimeter Luger fired cartridge cases, all four of them.
- Q. Now, sir, did you make a determination of whether 1-3was fired in the firearm that is Government's Exhibit 4-4?
- A. As I have previously said, it was, and it was onlyfired in this particular firearm.
- Q. Did you make a -- were you able to make a

 determination of whether the bullet in 1-3 was fired -- I'm

 sorry -- came from one of the cartridge cases that you have

just discussed?

A. No. I am unable to do that. During the firing process, the rifling markings generally obliterate all evidence of the fired case's markings that could have potentially marked the fired cartridge as it was drawn away from the fired cartridge case.

So, no, I am unable to say that it was fired from any one of the previous particular fired cartridge cases, other than it is the type of bullet that is normally loaded into those four fired cartridge cases that I have previously spoken about.

- Q. Now, with regard to this bullet in particular, in 1-3, did you find any foreign substance on the bullet?
- A. Yes, I did.
- Q. What did you find?
- A. In this particular case, to allow me to examine it, I first of all document the bullet and look to see anything that's abnormal.

In this particular case, I found white, trace-type material, which is consistent with what I normally see when bullets such as this would strike drywall or a similar type item.

- Q. If you would take a look at Government's Exhibit 1-6, please.
- A. (Complies).

Q. What is 1-6?

- 2 A. It's a further mutilated flat, flattened fired bullet.
- 3 It is -- it doesn't -- a bullet is made up of a core and a
- 4 jacket. And in this particular case, the jacket itself,
- 5 which is the exterior surface of the bullet, has been
- 6 partially ripped away. But there is still certain of it
- 7 remaining. It's very common, in the firing of a bullet,
- 8 that the bullet gets mutilated. In this particular case,
- 9 some of the jacket material is missing.
- 10 Q. And, sir, were you able to determine whether that
- 11 bullet was fired from Government's Exhibit 4-4?
- 12 A. Yes, I was.
- 13 Q. And what was --
- 14 A. It's my Item Number 49, and I determined that it was
- fired from Government's Exhibit 4-4, and only that
- **16** particular firearm.
- 17 Q. Sir, if you would take a look at Government's Exhibit
- **18** 1-7, please.
- **19** A. (Complied).
- 20 Q. And what is that?
- 21 A. This is a, also known as my Item Number 50, 50. It is
- 22 | a further mutilated jacketed bullet, with attached lead
- 23 | core, mutilated lead core.
- 24 Q. And, sir, was the bullet was in good enough condition
- 25 that you were able to determine whether or not it was fired

from 4-4?

- A. Yes, I was. In this particular case, it was firedfrom Item 4-4, and no other firearm.
- Q. If you would take a look at Government's Exhibit 1-8,please.
 - A. (Complied). It's also known as my Item 51. It is comprised of a laminated wooden floor tile of tongue and groove construction. It has a bullet hole in the particular floor tile. And on the underside of this particular floor tile I recovered a bullet jacket fragment, which was attached to the floor tile itself.
 - Q. And sir, when you recovered that bullet fragment, were you able to conduct a comparison to determine whether it was part of a bullet that was fired from Government's Exhibit 4-4?
 - A. Yes, I was. I was able to determine that it was fired -- this particular jacket fragment was fired from Exhibit Item Number 4-4, and no other firearm.
 - Q. And, sir, within Government's Exhibit 1-8, how many bullet holes did you find in that tile?
 - A. There was -- there is one bullet hole visible on the right-hand -- well, on the tile, closer to the edge of the tile, in this particular position, readily visible through the plastic, above my laboratory number and Item number, which is written in red on the tile itself.

1	Q. And, sir, if you would look at Government's Exhibit
2	1-10.
3	A. (Complied)
4	Q. What is it?
5	A. It is also known as my Exhibit Number my Item
6	Number 52. It is compromised of a lead core and a
7	fragmented bullet jacket.
8	Q. And, sir, were you able to based on the condition
9	of that bullet, were you able to determine whether it was
10	fired from the pistol which is Government's Exhibit 4-4?
11	A. In this particular case, the fragments that I observed
12	exhibited class characteristics common to this particular
13	firearm, Exhibit Number 4-4.
14	However, there were insufficient unique
15	individual microscopic markings which would enable me to say
16	conclusively that it was fired from this particular firearm.
17	Q. Based on your expert opinion, are you able to
18	determine that it was not fired from this firearm?
19	A. No. There is nothing to indicate that it was not
20	fired from this particular firearm.
21	However, as I have said, the unique individual
22	markings which are required in sufficient quality and detail
23	for me to effect an identification, in other words, say that
24	it was fired from a particular firearm, were not there.

Q. Sir, if you would take a look at Government's --

1 (Simultaneous discussion)? THE COURT: Well --2 BY ATTORNEY STOKES: 3 -- Exhibit --THE COURT: Well, let's --5 Why were they not there? 6 7 THE WITNESS: In this particular case, as I 8 have said, it's an extremely mutilated bullet, and it has 9 clearly struck a hard object, and there was just 10 insufficient of these marking to enable me to say 11 conclusively that it was fired from this firearm. 12 THE COURT: Next question. 13 BY ATTORNEY STOKES: 14 If you would take a look at Government's Exhibit 1-12, 15 please. 16 (Complies) It is a wood fragment, together with a 17 bullet jacket fragment. 18 And, sir, what -- did you examine the fragment that's 19 contained with that -- the bullet fragment that's contained 20 with that to determine whether it was fired from the handgun 21 which is Government's Exhibit 4-4? 22 Yes, I did. In this particular case, it's also known 23 as my Item Number 54, and I found that this particular jacket fragment was fired in Government's Exhibit 4-4, and 24 no other firearm. 25

1	Q. And, sir, the bullets, the mutilated bullets and
2	fragments that you have just examined, what caliber
3	ammunition or cartridge did those mutilated bullets and
4	fragments come from?
5	A. They are from the nine millimeter Luger or nine
6	millimeter Parabellum or nine-by-nineteen, or nine
7	millimeter Nato cartridge, as found in the Government's
8	Exhibits 1-1, 1-2, 1-4 and 1-5. Bullets nine millimeter
9	Luger bullets would normally be loaded into those particular
10	fired cartridge cases.
11	Q. Now, sir, a nine millimeter handgun and I'm sorry,
12	the ammunition, the nine millimeter ammunition for a nine
13	millimeter handgun, would any brand of nine millimeter
14	ammunition work in any brand of nine millimeter handgun?
15	A. Well, clearly, I would have to I would have to look
16	at that particular ammunition and see whether it falls
17	within the specification. However, nine millimeter Luger
18	ammunition or nine millimeter Parabellum ammunition or nine
19	millimeter Nato ammunition, or nine-by-nineteen millimeter
20	ammunition, is designed to be fired in Government's Exhibit
21	4-4.
22	So, as long as it meets that specification,
23	then it should you should be able to fire it in that
24	firearm, assuming that it wasn't defective.
25	Q. If you would take a look at Government's Exhibit 1-9.

- 1 A. (Complies). And what is that, sir? 2 Q. These are fired -- I mean, these are cartridges that I 3 have previously examined. They have my Item Number 125, written on them, and they are Remington brand nine 5 6 millimeter Luger or nine millimeter Parabellum or 7 nine-by-nineteen, or nine millimeter Nato cartridges. Are those cartridges capable of being fired in the 8 handgun that you examined at 4-4? 9 10 They are the type designed for use in a firearm such A. 11 as government Exhibit Number 4-4. 12 Q. If you would take a look at Government's Exhibit 2-1, 13 please. 14 A. (Complied). 15 What is 2-1? Q. 16 This is a UNC Remington brand box with the associated 17 black tray that would normally fit inside this box. And 18 within this black tray are unfired cartridges which I have 19 previously examined, and found to be the type designed for
 - Q. Now, sir, in this case were you asked to examine a section of drywall with a gouge mark in it?

use in the firearm such as Government's Exhibit 4-4.

A. Yes, I was.

20

21

22

- 24 Q. And what did you do?
- 25 A. I examined the drywall to determine whether it

exhibited any markings which were consistent with bullet 1 markings. 2 I found a gouge mark consistent with an angled 3 bullet impact damage, having right to left direction, in the direction of the front door as illustrated by the police 5 orientation arrows. 7 And, sir, if you would take a look in binder two at Government's Exhibit 6-9. 8 (Complies) Yes. It's a copy of a report that I have 10 completed with regard to the box of 32 cartridges, 11 Government's Exhibit 2-1, the 12 cartridges, Government's 12 Exhibit 1-9, and a piece of drywall. 13 And --Q. ATTORNEY STOKES: Your Honor, we would move 14 Government's Exhibit 6-9, I believe that was, into evidence. 15 16 ATTORNEY MANITTA: There is no objection. 17 THE COURT: It's admitted. 18 ATTORNEY STOKES: The Court's indulgence. 19 (Pause). 20 ATTORNEY STOKES: No further questions, your 21 Honor. 22 THE COURT: Cross-examination. 23 ATTORNEY MANITTA: Yes, your Honor. 24

CROSS-EXAMINATION

BY ATTORNEY MANITTA:

- Q. Good afternoon.
- A. Good afternoon.
 - Q. I'm going to ask you if you could use Government's Exhibit 4-4 to demonstrates and answer some questions, if you would have it handy.
 - A. Sure.

It is, as you can see, unloaded. There is nothing in the barrel of the firearm, as well as it's been cable tied in the rearward position, the open position.

- Q. How does the gun get into that open position?
- A. Well, it can get into that position either when it is fired, in other words, and there is no ammunition in the magazine itself -- let me first explain a portion of the firearm.

(Indicating throughout)

on the left-hand side of the firearm, above the trigger, is what we called a hold-open device or a slide stop. This lever, when it is pushed up, it holds the slide -- which is this metal portion moving to the rear -- this particular slide is held open to the rear by this particular lever, which we call the hold-open or slide -- hold-open device or slide stop.

If the magazine is empty it is placed within the firearm, then the top of the magazine, the part of the -- this particular portion of the magazine, this movable, spring-loaded piece, is what we call the follower.

That, the follower pushes up on this lever from the inside. And if the firearm is emptied, then it is designed to be held open in the rearward position.

You can also hold open the firearm just as I'm doing, such as this, by using your thumb or finger to hold the side open. It is a simple lever device holding the slide to the rear. How it is manipulated is dependent upon the person who is using it, as well as the magazine being inserted into the firearm.

- Q. And when it is open, the gun is not fireable; is that accurate?
- A. That is correct. The action or the slide has to be in the forward position, closing the rear end of the barrel.

 That is, the firearm is then in battery and ready to be fired if the safety lever is in the "off safe" position, in the fire position.
- Q. So, tell me if this is accurate: If you are firing the gun and it runs out of bullets --
- A. Of cartridges.

Q. -- of cartridges, it will remain open and you know you
are out of cartridges?

1	A. I would I would expect that you could, or you
2	should realize that, if you are familiar with firearms, that
3	if the firearm is open and held in this position, that you
4	can't do anything more. The trigger is inactive. The
5	firearm looks different to when it is in this closed
6	position, which is in the normal "fire" position. It looks
7	different, and I would expect that a person would be able to
8	see that it was empty and open in this particular position.
9	Q. When the gun is fireable I'm not sure if you can
LO	explain this. How sensitive is the trigger on that
11	particular firearm?
12	A. In this particular case, I measured the trigger pull.
1.3	I found it to be normal. It required an eight and
14	three-quarter pound pull on the trigger to discharge,
15	discharge a firearm.
16	In other words, you would have to manually load
17	the magazine, insert the magazine into the firearm, close
18	the action of the firearm. Thereafter, grip the firearm
19	properly, aim it in the direction you are intending to fire
20	he firearm, and pull the trigger. You would have apply
21	eight and three-quarters pounds of pressure to the trigger
2 <i>2</i>	before the hammer dropped.
23	In other words, if I apply eight and
24	three-quarters pounds of pressure to the trigger, then, if
25	the firearm is loaded with a round in the chamber, then when

- I pull the trigger such as that, the firearm is designed to discharge.
- Q. In lay terms, is it easy or hard to pull the triggeron that gun?
 - A. This is normal for this type of firearm. However, it would in no way be regarded as a hair trigger or very light trigger pull. Eight and three-quarters pounds is a substantial amount of pressure that's required on the trigger to discharge the firearm.
 - Q. Now, you analyzed the cartridge cases and bullet fragments and bullets that were submitted to you. You talked about Item Number 52, which could not be conclusively identified as having been fired from that firearm; is that -- (pause) --
 - A. That is correct. I was unable to determine that it was fired from this firearm, and only this firearm.
 - **Q.** And --

- A. It exhibited markings that were similar. However, I couldn't conclusively say, due to damage to the particular bullet, it just didn't -- I didn't -- I wasn't able to see the microscopic markings that I am required to be able see to effect an identification, or to say whether it was not fired from that particular firearm.
- Q. And conceivably, it could have come from a different firearm.

I could not rule out that possibility. 1 A. And your analysis of the various items that were 2 Q. submitted to you cannot tell you the order that cartridges 3 were fire in; is that correct? That is correct. 5 A. 0. Is it also accurate that you can't tell when these 6 items were fired? That is correct. I cannot material you when they were 8 fired. 9 10 However, they exhibited no unusual 11 characteristics: rust, corrosion, erosion, which would tend 12 to indicate a long time lapse, or may indicate a long time 13 lapse. But the exact duration, I am unable to tell you when it was fired, other than it was fired. 14 15 What would be considered a long duration? Q. 16 Oh, it would depend on the exposure level to -- in 17 terms of some rusting material that it was exposed to. 18 could be, we could be talking about from days to weeks to 19 months. 20 But there is no indication that it was anything 21 There were no unusual markings on the cartridge 22 case which would enable me to say when it was fired. 23 Q. But these items could have been fired, for instance, a

day apart or a couple of days apart?

That is correct.

24

25

A.

- 1 Q. Up to weeks apart, perhaps? Oh, could, could be weeks, as well, apart. 2 A. Could it be even longer than that? 3 0. It could be. If they were, if they were fired and 5 then recovered in a friendly environment, which could not cause those items to rust, it could be weeks, months, even 6 7 years apart. But I would think that would be unlikely, 8 9 because years apart would, generally allow the blast 10 components to tarnish to corrode, and I see no major 11 indications of any tarnishing or change in those particular 12 items. 13 I believe you also testified about some foreign 14 material found on Item Number -- I will use your item 15 number -- Item Number 14, I believe it was. 16 That is correct, which is court exhibit, Government's 17 Exhibit 1-3. 18 ٥. Was that the only item that you found any foreign 19 material on? 20 A. No, not at all. 21 Can you tell us what foreign material you found on all Q. 22 of the others? 23
 - Α. Yes.

24

25

In other words, there was -- if we look at exhibit, Item Number 50, there was wood trace. There was, in other words, wooden fragments attached to the mutilated bullet. At least I made notes of these.

I don't rule out the possibility that there could be something else, but there were clear wood traces visible on Item Number 50.

If we look at the bullet jacket fragment found in Item, my Item Number 51, which is court Exhibit Number 1-8, there was black tar-type traces, which I cleaned off the base portion of this bullet jacket fragment.

If we look at the Item 52, which is court Exhibit 1-10, there was also black-type tar traces, or which could be tar-type traces on this mutilated bullet.

If we look at my Item Number 54, which was court Exhibit 1-12, there was also black trace material on the base bullet jacket fragment that I examined.

That's what I have noted in my notes with regard to the examination of these particular bullets, bullet fragments, that I analyzed.

- Q. And so you have not noted any biological material on these bullets and bullet fragments in your report.
- A. No, I did not note that.
- Q. And did you send these off for that sort of testing?
 - A. No, not at all.

Q. So, is it fair to say that you can't determine if any of these bullets went through a person, I guess for lack of

1 a better way to put it. It's not uncommon for me to get bullets that have 2 passed through some, some particular person, and we don't 3 have any trace material, such as blood, on the particular bullet itself. 5 But that is correct. I cannot say 6 7 conclusively, because I did not examine it specifically to look for blood trace on these particular fragments. 8 9 If I had been asked to do that, I could 10 potentially have, potentially have done it. But in this 11 particular case, I marked what was readily visible to me, 12 and there wasn't any blood trace that I readily. And I 13 didn't find that unusual. But just to clarify, you couldn't say which, or in 14 15 fact if any, of these bullets went into or through a person? That is correct. 16 Α. 17 Now, when a bullet does enter a human body, is it true 18 that it would slow down considerably? 19 Α. It may or may not, depending on how much tissue, 20 flesh, bone, that it had to penetrate through. 21 I don't know what you mean by "considerably," but it would slow down, yes. If it passes through any 22 23 substantial target material, it will impart some energy to 24 it.

25

Q.

A thicker, larger person, perhaps it might slow down

more than a small person?

A. It may or may not, depending on how the person, where the person was struck, and depending on the initial velocity of the particular bullet.

Bullets slow down when they pass through things. I cannot tell you how much they slow down, but they do slow down.

In this particular configuration that we have, it's not bowl or military style, long jacketed, hollow point ammunition, the bullets are not designed to mushroom or open up, they are designed to pass through the particular object that is being struck. And, depending on what they strike, they may stay, stay within the particular target, or pass through the particular target.

With nine millimeter Luger ammunition such as this, it is very common that we get bullet passage completely through the target, such as a person.

Q. Sir, would you be able to determine whether, if a bullet did pass through a person, it would still have the velocity to go through wooden tile?

Would you be able to make that determination, or --

A. I would expect, with a nine millimeter Luger cartridge such as this, that it would readily be able to pass through somebody, without having struck big bone, and then pass

through a floor tile --1 And in fact --2 Q. -- such as what I examined. Such as what I examined. 3 And we do have at least two that were in wood tile, these fragments? 5 Well, there was a wooden fragment with my Item Number 6 A. 54, which is court Exhibit 1-12, and that was just a small R wooden fragment, approximately seven and a quarter inches 9 long and of irregular shape. It wasn't a floor tile, but 10 rather a piece of something, of something that may have been 11 a floor tile. 12 So, it's just a small sliver of wood. 13 can show me the exhibit, I would be able to see clearly. 14 THE COURT: Do you have a question before this 15 witness? If you have, I have lost track of it. Reask 16 17 your question. 18 I was asking if there were, in fact, at least two 19 items that were fragments found in wood tile, or fragment of 20 wood tile. 21 There was a fragment that -- a bullet jacket fragment 22 that was attached to a wooden tile that I examined. There is also a further small bullet jacket 23 fragment which has a, what appears to be a fragment of 24 wooden tile associated with it. 25

1 ATTORNEY MANITTA: Thank you. BY ATTORNEY MANITTA: 2 Do you know the age of this -- of the weapon, of Item 3 4-4, Exhibit 4-4? In other words, when it -- exactly when it was 5 A. manufactured? Q. Yes. No, I can't tell you when it was -- all I know is it's 8 a good bit younger than I am. So, yes, it would definitely, 9 10 without doubt, be less than 20 years old. 11 But we cannot tell within those two decades? Q. 12 I did not make an attempt to do that. So, I can't 13 tell you, other than Interarms within Alexandria, Virginia, went out of business, or at least importing firearms, at 14 least seven, eight, nine years ago, if my memory serves me 15 16 correctly. 17 So, as I said previously, this was marked with 18 an Interarms import marking, so it would be somewhere in 19 that range. I can't say. It clearly can be determined from 20 certain government records, when it was imported into the 21 country. 22 On direct, you testified, and I believe you might have 23 demonstrated, that the cartridge casing comes out of the firearm when it is fired. 24

25

A.

Yes.

1	If we it is still
2	(Simultaneous discussion)
3	THE COURT: Is the answer
4	THE WITNESS: unloaded
5	THE COURT: "yes"?
6	In the interest
7	THE WITNESS: Yes
8	THE COURT: of the finitude of life, the
9	answer is "yes."
10	Next question.
11	BY ATTORNEY MANITTA:
12	Q. Am I correct that the cartridge casing comes out the
13	top of the firearm?
14	A. Out of the ejection port of the firearm.
15	Q. And how far does it travel, with that particular
16	firearm?
17	A. It would be in close proximity to the firing of the
18	firearm.
19	Q. What do you mean by "close proximity"?
20	A. In other words, it wouldn't be if we were in a room
21	or something, something similar, it would be within a couple
22	of feet of where you had fired the firearm, assuming that it
23	hadn't been rolled, hadn't rolled away or been kicked away,
24	or moved.
25	Q. In your analysis of these items, did you find any

fingerprints on the magazine or cartridge casings? 1 It is -- it's not -- it's a function of other people 2 within the laboratory to --3 THE COURT: The answer is, you didn't find any because you weren't asked to look for any. 5 THE WITNESS: That is correct. 6 THE COURT: Next question. BY ATTORNEY MANITTA: Do you know if anyone was asked to look for any? 9 Q. I don't know for a fact. I can -- I can look at that. 10 A. 11 ATTORNEY STOKES: Your Honor, I'm going to 12 This is based on hearsay. This witness is not a object. 13 fingerprint expert. THE COURT: I will sustain it. 14 15 ATTORNEY MANITTA: Thank you, your Honor. 16 I have no further questions. 17 THE COURT: Any redirect? 18 ATTORNEY STOKES: Just briefly, your Honor. 19 20 REDIRECT EXAMINATION 21 BY ATTORNEY STOKES: 22 In addition to examining a bullet's microscopic markings, is the location where a bullet or a mutilated 23 bullet is found, is that also a factor that can be used to 24 determine whether it was fired from a particular gun? 25

1	A. Oh, definitely. If we have a single bullet hole
2	through a particular item, and we have bullet fragments
3	behind that particular item, there is clearly strong
4	indication that a single bullet passed through the
5	particular part and then fragmented on the other side, since
6	we if we find items on the other side, that's the only
7	explanation for it.
8	ATTORNEY STOKES: No further questions, your
9	Honor.
10	THE COURT: Any recross, based only on that?
11	ATTORNEY MANITTA: No, your Honor.
12	THE COURT: You may step down.
13	(Witness excused)
14	THE COURT: Call your next witness.
15	ATTORNEY STOKES: Your Honor, if we may examine
16	the, the admitted items, I believe that will be our last
17	witnesses.
18	THE COURT: All right.
19	THE WITNESS: May I be excused, your Honor?
20	THE COURT: Yes, you may.
21	ATTORNEY STOKES: Your Honor, I'm sorry; if I
22	may. There is one additional question, very brief question,
23	if I may ask the witness.
24	THE COURT: All right.
25	Return to the stand, Mr. Arntsen.

1	(Witness resumed stand)
2	ATTORNEY STOKES: Just to clear up one issue.
3	
4	GARY C. ARNTSEN, having been previously duly
5	sworn, was examined and testified further as follows:
6	FURTHER REDIRECT EXAMINATION
7	BY ATTORNEY STOKES:
8	Q. Sir, do you know where the bullets the cartridge
9	cases you examined, do you know where those were
10	manufactured?
11	A. Yes. They were, they are marked as being manufactured
12	by Remington-Peters, within the United States.
13	Q. And do you know where Remington-Peters manufactures
14	ammunition?
15	A. Yes. In Lone Oak, outside the State of Virginia.
16	Q. And what was the name of that town you said?
17	A. Lone Oak. Lone Oak. Not Roanoke, Lone Oak.
18	ATTORNEY STOKES: Thank you, sir.
19	THE COURT: All right.
20	Ms. Manitta, do you have anything further
21	(pause)
22	ATTORNEY MANITTA: No
23	THE COURT: based on that?
24	ATTORNEY MANITTA: your Honor.
25	THE COURT: That was outside the scope of your

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1
       cross and his direct. I allowed him to do it, so you may
       cross-examine.
 2
 3
                    ATTORNEY MANITTA:
                                        I don't have anything.
                    THE COURT: You may step down.
                    (Witness excused)
 5
                    THE COURT: All right.
 6
                    Then, with the exception with the government's
       checking for the exhibits, that concludes the government's
 8
       testimony and its case-in-chief?
 9
10
                    ATTORNEY STOKES: Yes, it does, your Honor.
11
                    THE COURT: All right.
12
                    Let's me have counsel at the bench, quickly.
13
                    (Side-bar conference held as follows:)
                    THE COURT: All right. I show the following
14
15
       exhibits. And I could do this -- yes.
16
                    (Pause)
17
                    THE COURT: On the "1" series, it's 1 through
18
       1-12, 1-14 and -15, 1-25 through 1-35, and then 1-37 through
19
       1-45, 1-47, 1-50 through -54, 1-55, 1-56, 1-57, and 1-61.
20
                    Now, have I omitted any on the "1" dashes?
21
                    ATTORNEY STOKES: I believe so, your Honor.
22
       1-58.
                    THE COURT: Yes, that's admitted. That's
23
24
       correct.
                    Have I omitted any others on the "1" series?
25
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1 CERTIFICATE OF REPORTER 2 3 I, MICHAEL A. Rodriguez, an Official Court Reporter for the United States District Court, in the 5 б Eastern District of Virginia, Alexandria Division, do hereby certify that I reported by machine shorthand, in my official capacity, the proceedings had and evidence adduced upon the 8 jury trial in the case of UNITED STATES OF AMERICA v. 9 10 WILFREDO MONTOYA-BAIRES. 11 12 I further certify that I was authorized and did 13 report by stenotype the proceedings and evidence in said jury trial, and that the foregoing pages, numbered 1 to 154, 14 15 inclusive, constitute the official transcript of said 16 proceedings, Volume 8, as taken from my machine shorthand 17 notes. 18 19 WITNESS WHEREOF, I have hereto subscribed my 20 21 22 23 Official Court Reporter

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