IN THE CIRCUIT COURT OF
THE NINETEENTH JUDICIAL
CIRCUIT IN AND FOR
MARTIN COUNTY, FLORIDA

STATE OF FLORIDA CASE NO. 432011CF000114

vs.

MICHAEL OPSINCS,

Defendant.

_____/

TESTIMONY OF RICK ANTHONY SWOPE

This cause came before the Court for a Jury Trial held on July 24, 2013, before the Honorable William Roby, Circuit Court Judge, at the Martin County Courthouse, Stuart, Florida.

APPEARANCES:

For the State:
Nita Denton, Esquire
Micheal Linn, Esquire
Office of the State Attorney
Stuart, FL 34994

For the Defendant(s):
Mr. Showe
Mr. Baehman
Office of the Public Defender
Stuart, Fl 34994

MR. SHOWE: Yes sir, I'd like to call Mr. Rick Swope.

Is it okay if he stands here?

THE COURT: I kind of gotta swear him in first though.

MR. SHOWE: Oh.

THE COURT: If you'll come over here and face the Deputy Clerk, we'll swear you in, --

MR. SHOWE: Thank you, Judge.

THE COURT: -- and then we'll release you to move about the courtroom.

RICK SWOPE, DEFENSE WITNESS #1, SWORN

THE COURT: And for the record, sir, tell me your name, please, spelling both your first and last names.

RICK SWOPE: Rick Anthony Swope; R-I-C-K S-W-O-P-E.

THE COURT: Thank you, sir.

I'm releasing you of your (inaudible).

MR. SHOWE: All right, Mr. Swope, you can stand wherever you're comfortable.

RICK SWOPE: (Inaudible) my papers over there, is that all right?

MR. SHOWE: Yes.

RICK SWOPE: Or do you want me to stand here for now?

DIRECT EXAMINATION

BY MR. SHOWE:

Q. First off, you said your name, Rick Swope.

A. Yes.

Q. What's your occupation?

A. I do accident reconstruction. I do primarily reconstruction of motor vehicle accidents. I do motor vehicles, trucks. I do mostly heavy vehicles; trucks, busses, those kind of things.

Q. Okay. And can you tell the jury some of your educational background?

A. I have a Bachelor's Degree from St. Thomas University in Miami. I have a Master's of Science Degree in Technology and Engineering from the University of Miami. I just finished a while back a PhD program in Engineering Management. I'm working on my paper, but my classes are completed, so I'm working on my dissertation now. And that's pretty much my education background.

Q. So in addition to being taught, do you also teach?

A. Yes.

Q. Okay, what -- what type of courses do you teach?

A. Well I'm an instructor for the National Highway Traffic Safety Administration, and also the Department of Transportation. I was an instructor for the State of Florida for about 15 years for the Criminal Justice

Institute training programs. I've been on staff at various locations; Institute of Police Technology and Management in Jacksonville, University of Southern Florida, also the -- I'm sorry the Southern Police Institute, I couldn't think of the name, in Kentucky. I also taught around the country. I'm certified to teach officers in all 50 states. I taught reconstruction either with programs through Society of (inaudible) Engineers, or specific state programs where I've taught around the country. I've certified about 4,000 officers.

Q. And that gets into my next question. You -- you have certifications that you teach as well?

A. Yes. There's -- most -- most individuals that teach have certifications to teach either in your state, or in your county, or somewhere where you're -- you have authorization to do that. I'm certified nationally so I can teach in all -- all 50 states and in territories of the U.S. So I've taught pretty much all around. I've done lectures at Emery University, University of Miami, different universities. I actually taught a class at Harvard. It was a traffic and alcohol class. I was asked to speak there a few times during their summer session. So I've been there a few times and (inaudible).

Q. Have you written any articles or had any published works?

A. Yes. I've written articles in -- I have written my own book, but I've written articles in other books where a chapter is dedicated to me, and I've written a chapter in several different books. I've written over 250 training outlines for police agencies and criminal justice and standards and training commissions. In other words, those outlines are used to teach officers in various fields and various things, how to work accidents, accident scenes, those kind of things. So I've worked on those over 250 times and I've taught -- I indicated I don't even know how many hours I've spent in class, but I've taught somewhere around 4,000 officers since 1985.

Q. All right.

A. Somewhere around there.

Q. I guess can you give us a general idea of your work background?

A. Well, I started -- first of all I started doing accident work actually in the military. I went in the military, the U.S. Army, in 1974 and I actually was assigned as a military police officer. And I just happened to get the traffic division and I began doing accident work there. I took several hundred hours of training. I was stationed in Kansas, so I was with the Kansas Highway Patrol working accidents, as well as accidents on -- on base, or post, we called it at that time. After that I

went to the Monroe City Police Department, and I worked traffic there for about 6 years. I took probably a couple thousand hours of classes dealing with accident reconstruction. It was a different term then. I think it was technical investigation. And then I was asked to come to Florida in 1984 by the Broward Sheriff's Office. They were starting a traffic division and they were looking around and they gave me an opportunity and I became the (inaudible) coordinator of the traffic (inaudible) division in 1984. And I was there until 1990, and I started with just me in the unit, and when I left there was about 40-some people or something like that. And I taught, you know, all the classes and the field training classes that the officers had to take at that time. I probably -- I've been on the scene of over 750 traffic fatalities. I've worked somewhere in the neighborhood of about 3,000 traffic fatalities. And I've reviewed over 10,000 accident reports or crash reports that I either had to proof or view during that period of time. I also worked on committees to work on (inaudible) report that the State uses. Of course that was in the mid 80's. Now they have a different forms. Initially at that time I was part of the committees that wanted to decide what to put on the forms, and what would be logged, and those kind of things during accident investigations. So, -- so I was a pretty integral part of

working on that, and worked, like I said, on a lot of -- a lot of crashes.

Q. So how long exactly have you been in the field of reconstruction?

A. Since 1974. And I currently have my own company now.

Q. Well tell us about your company.

A. Well I left police work in 1990. I started my own company, Swope Reconstruction, and I have an office in Atlanta, I have an office in Ft. Lauderdale, and we currently work in about 24 states. I have employees that do contractual work for me. My daughter actually is an engineer. She does a lot of work for me as well. And we do, as I've indicated, mostly traffic crashes. Probably one percent or less of our business is related to criminal cases such as this. The rest of it would be civil cases involving, you know, normal lawsuits, insurance company cases. For automobile manufacturers we do a lot of (inaudible) downloading trucks.

Q. That's the computer?

A. Yes, right. Every vehicle has a computer of some kind, and everyone of your cars have some type of computer system in it that -- that can either be downloaded by individuals such as me, or the auto companies, or somebody else. So I do a lot of that work, and we do a lot of

downloading heavy trucks. All the trucks that are on the road, the semis, buses, those kind of things, they all have similar systems. They're a lot more complicated. But usually when there's a crash involving a heavy vehicle we get called out and we download data, and we basically try to determine what happened based on that. It makes it a little easier obviously when you have the data, but you still have to, you know, use the mathematical basis to back the data.

Q. Okay. Well I think the -- the jury probably has a pretty good idea of what you do, but can you explain what accident reconstruction is?

A. Sure. Accident reconstruction really is just -- there's two things that you wanna attempt to solve for. Time and distance is really the two things you wanna solve for. And of course that gives you information such as speed, final rest positions, normally how the crash occurred. From an engineering standpoint, someone like me, I rarely look at -- I look at it, but I rarely rely on witness testimony as to what a driver said, or what a passenger said. I try to rely on strictly what I see either in photographs, a lot of times most cases, such as this case, police collect a certain amount of evidence, you look at that. Photographs usually tell you pretty much what happened. Roadway evidence, roadway debris, those

kind of things. So you attempt to look at the vehicles, if you can. I've looked at them in this case. And you try to just kind of put the picture back together of what happened and how it happened. Of course, the more you do it, the more experience you do -- you -- you look for little red flags and things that maybe somebody may have missed, or, you know, something that the police may have missed initially. You know, the police generally collect evidence so to speak, and they graphically put down kind of what they see, and take photographs. And depending on their amount of training, some officers basically go further to investigate. A lot of times they turn it over to people like me, or it goes civil and then we get involved in the civil case. So there's a lot of different things that happen on a reconstruction, but basically --

Q. Well, is there a general procedure that you have in --

A. Yes.

Q. -- in handling?

And can you explain that?

A. Well a case such as this, normally what we do is we ask to see the vehicles, if they're available, which we did. We looked at the vehicles. There's certain things we look for. Sometimes cases involve a manufacturing defect and that takes on a whole different approach, meaning that

maybe the manufacturer did something wrong, maybe a repair shop did something wrong, maybe -- there's certain things you look for. So that's kind of where you concentrate. Then you concentrate on what the police collected, what they did, what they saw, and you look at the photographs. And generally the photos, when you've been doing it long enough, the photos initially will tell me pretty much in my head what's going on. I know pretty much -- I can look at a car and tell you -- well, roughly, how fast it was going. Certainly not -- you know, I wouldn't give the opinion unless I knew, but I can kind of look at it and say, okay, the car was probably going about this fast, this is what happened, this is why the collision occurred, that kind of stuff. And then you just kind of put it together from, you know, step one to maybe step fifty, depending on what you're looking at. And then you go back and circle and try to figure out, okay, am I right? Did I take the right path? And the great thing about -- the great thing about mathematical calculations is, is that normally you can always recheck yourself. So you can go back and say, well, if I followed this procedure, then this should work out. If it doesn't, then I figure, well, either -- either I messed up -- I messed up in the calculation, maybe the police collected something, maybe I looked at something wrong. And then you just kind of go back until you put the

steps together.

Q. So even in the gigantic equation you can still check your work?

A. Yeah. You always check your work, and you wanna make sure that you're right. And a lot of times your approaches aren't correct. I mean, a lot of times you started something and, you know, this is a -- what I call a special problem accident. And that's an accident that's different from your normal one. And when I say different, it's cause you have a car that's actually separated. So that's different from your normal collision. And it just so happened that this car separated just basically because of two things. Number one, where it was hit, or how it was hit. And number two is -- is that, you know, speed was (inaudible) car. So that's -- that's a different type of calculation than you normally do when you (inaudible) cars hit and they just go off.

Q. And we're gonna get into that.

A. Yeah.

Q. But first, how were you contacted in this case? Did I --

A. I was contacted by someone in your office actually in 2011 at some point. I'm not sure the exact date. But I was contacted, and as I said, we take very -- out of every (inaudible) 500 cases we take 1 criminal case. We just

don't do criminal hardly at all. But your office asked if I could come up with some speed issues, look at it. And I said, well let me review it real quick. I looked at the initial, you know, speed information and I said, well yeah, let me try and help you out because, you know, I think it's a little different than what you presented. I'll look at, see if I can come up with an exact speed. And that's what I did.

Q. Okay. And you are being paid for your services?

A. Yes. Well governmental agencies are different. We don't -- you know, we bill differently with governmental agencies, whether it's your office, or US Attorney's Office, there's a set rate and you bill (inaudible).

Q. Okay. Well, why don't we get into what you did in this case?

A. Okay.

Q. Do you need your --

A. Yeah, I need my file (inaudible).

Q. All right.

A. If I can maybe --

Q. Absolutely.

A. -- (inaudible) and look at it?

(Inaudible)?

Q. However you feel comfortable. I think the Judge said you're free to move about the cabin.

THE COURT: You're free to move around.
MR. SHOWE: Free to move around.
THE COURT: Yes sir.
RICK SWOPE: I guess since I'm standing I'll go back over here.
UNIDENTIFIED MALE: Judge, is it appropriate to set this here?
THE COURT: Sure, you can go ahead and do that.
BY MR. SHOWE:
Q. Well, I guess we'll get -- I mean, why don't you -- first off, can you explain to the jury how this accident happened?
A. Yes. Basically, as I indicated to the jury previously, what happened in this particular case was you have the vehicle, an Oldsmobile, struck a Honda, which is pulled from an intersection. And what happened is, is that there was an impact between the two. It was, I guess, what I consider to be roughly a t-bone accident. And the Honda vehicle split in half. It was tore in seams. And basically that was, as I indicated, it's primarily the way the accident happened. I'm sure in your period of time -- you know, I've seen thousands and thousands of accidents. Very few have I seen where a car had been split. And generally that's because of just the way the impact happened. If you get hit at a certain point, or a certain

portion on your car, that's what happens. Obviously not a 10 mile an hour impact, but this impact was in excess of 50. So just the way that the vehicle was hit, the exact way that -- the manner that it was hit caused the vehicle to separate along its seams and along its (inaudible) body line. And, I'll just give some kind of example of what I use in notes basically, is really when you're traveling in a vehicle and you're involved in an impact, the whole theory, without getting into your high school physics and stuff, is that the whole theory of momentum basically is that your energy is transferred, so when you make contact with somebody they feel your energy, and you feel their energy. I mean that's kind of the best way to describe it, so, and because the vehicles obviously give. Now something -- to give you another example would be if you're playing pool. If you've ever played pool and you hit the cue ball and it hits another ball, but the cue ball usually stops and the other ball moves on because they don't -- they don't mash into each other. Now if you were using softballs it'd be a different story because obviously the balls kind of collapse when they hit each other. Vehicles are kind of similar to that. Vehicles take in the energy. The vehicle is meant to absorb energy. And it's meant to dissipate the energy at the same time. So if you've ever seen a race on television, you might have seen a race car

crash into a wall and it goes into 50,000 pieces and the guy walks out of the car. And that's because the car is designed to break up. And the car is designed to destroy itself basically so that each piece of that car flying off takes some of the energy with it so that the operator or occupants feel less of the energy in the car. So there's two things basically we look for. I look for impulse and external forces in a case. And what I look for in that is is that when I run a calculation I should be able to come back and check the amount of force going into the accident should be the amount of force coming out of the accident. So I wanna kind of check the impulse data and find out exactly if I'm correct on that. Now, in this case, cause I told you, you have a separation of vehicles --

Q. And before we get to that, we actually went out to the scene and looked at the vehicles and you inspected them, is that correct?

A. Right.

Right.

Q. And you -- you inspected all the measurements taken?

A. Yes.

Q. Those were provided to you?

A. Yes.

Q. Okay. What else did you do in preparation for all

these calculations and everything?

A. Well, I -- I used -- almost without fault, I used the police information as far as where the impact occurred, where the vehicles ended up at. I used all of those measurements that the officer had. I also looked at the vehicles myself. There was nothing specific, per say, I did with the vehicles. There was no issue with braking on either vehicle. There was no issue with mechanical malfunction that I was aware of. Had that been in the report, then that's something totally that I -- I would have done. I would have done a mechanical inspection. But there wasn't -- there wasn't that. So then what I do is I pulled -- each car, as you're aware, has a vehicle identification number on it. I pulled that number and I ran a VIN check -- short for vehicle identification -- I ran that. That gives me the manufacturer's weight of the car. And I use that and, you know, obviously one car had occupants in it, the other car had just one occupant in it. So I try to account for that and put some weight in the car over and above what the manufacturer's weights are because you have occupants in the car, and you have fuel, oil, those kind of things. So that's where you get that information. And generally, unless the cars are weighed specifically, which they were not, but if they were weighed specifically it would give us a, you know, pretty close

idea. But otherwise, you know, we kind of use our experience to, you know, add or subtract weight depending on what it is. And again, weight is not a major, major factor unless you're off, you know, a thousand or two thousand pounds. But by looking at the car I got an idea of what -- you know, what they (inaudible). And then I come up with the weights, and then I did some momentum calculations. And this actually is my final one. I did probably maybe 10 or 15 other ones using different formulas for separation of pieces. And I'll get into that whenever you want. But separation of pieces was another story.

Q. Okay. And you say momentum calculation, this is how you come up with the speed with a lot of different factors?

A. Yeah. And -- and basically there's things you use. You use approach angles, departure -- approach angles are always easy because you pretty much know where the cars are. The departure angles are in secret to most of these type of calculations. And, as I told you, there's -- there's another mathematical formula which we use for pieces. So in other words, let's say the car splits in two, like it did in this case. You can theoretically do a momentum problem on each -- each one of those. The problem I had in this case was, was that none of the mathematical calculations came out correctly; none of them.

Q. How did you know that?

A. Because every time I went back to recheck them it came out the numbers, the impulse data, and momentum data did not match. In other words, as I indicated to the jury before, as I'm sure you're aware, the amount of force going into an object is equal coming out. Now obviously after it comes out it dissipates, but the same amount of force that goes into it is -- is going to come out. So in other words, same thing as if you shot a bullet, that bullet will go until it runs out of energy and fall. But as long as that bullets going on a trajectory it's got -- you know, it's dissipating energy each time it goes, but the bullet is still going in a straight line till it runs out and falls.

Q. And this is kind of based off the basic premise that energy is neither created nor destroyed, it just kind of --

A. That's right.

Q. All right.

A. That's right.

So -- so what you have to look for is -- in other words, what I'm looking for is (inaudible) how did the cars hit? Were they angled? Were they moved a little bit? What was the exact pattern? Now, the -- the great thing about physics is that wherever your starting point is could

be wherever it wants to be. If I wanna start a physics problem from here I can, or here, it doesn't matter, as long as I start it at zero. It doesn't matter engineering wise where I start. So, one of the vehicles are always gonna be in a heading of zero. So I can turn it whatever way I want, I can -- so, one vehicle is zero, then the other one is either 90 or 89, or 60, or whatever it may be. So the problem I was having with the separation of the pieces work is that it never gave me a momentum balance where I could come back and say, okay, this is correct because each piece takes a certain amount of energy to go off. It never came out right. It was off 30 percent, 40 percent, 50 percent. I teach my students you should be within three percent of -- of the amount of momentum going in and out. So you should be pretty much there. But there's other factors you look at, such as, okay, how far did they go after impact? Well, the main impact in this case would be the (inaudible) vehicles, which is the Oldsmobile, traveling in a zero direction. We know from the police report that that vehicle ended up, I think it was 219 feet from the point of collision to the point of rest. So that gives me another point. I can say, okay, we know the vehicle's here, the police measured it here, so I'm going with that measurement. The pictures seem to confirm that. So now how much energy does it take,

assuming there's probably some break (inaudible), to get to that point? Well, the problem I had with the initial separations was it had all of the speeds, you know, could be 75, 85, 90, but the problem was the vehicle should go much farther than the 219 feet. That's -- which is two thirds of a football field. So that didn't come out. My momentum balance didn't come out either. So I decided, okay, let's go back to the old system and figure out what's important as to point of impact, where the two vehicles first meet. Cause we know, obviously, the Honda's intact. We know the Oldsmobile was intact. So the next thing we have to figure out is how did they depart? Well, the initial collision phase is simple -- pretty simple. We have a vehicle that's going, I'd say in a northerly direction, it's going to turn. We have another vehicle which goes in an easterly direction, which is pretty much straight. So now we have some calculations for what's called impulse and vector sum, which is basically just what happened to the vehicles afterwards, after impact? So now when I got through my speed velocity my program basically tells me I'm on track. The problem was I kept getting -- until I got to this point I kept getting error, error, error, error, error. I kept getting all that information. So when I ran the numbers, went, okay, let's find out where the cars ended up at, let's go back and check that, let's

figure out what the momentum balance is between the two vehicles. My program actually tells me -- you know, that's why I use the program, because it tells me if I've made an error. So I go back and figure out the difference is 11, and the difference here is 15, which means I'm off .99 percent; point. So I'm off less than one percent. And here I'm off roughly a percent. So if it's 3 percent or less, and generally you get 2 percent, 2.5 percent, you know, something like that. My calculations with all of the separation and everything else was off 30 percent and 40 percent. So I knew somewhere something had to be wrong. But I figured, okay, we'll finish this up. Let's see what else I have. Well, now we have the vehicle going 219 feet. So if we have some breaking, some friction, because obviously when you hit something you're gonna probably break in most cases. There's no indication that this vehicle left the scene or was trying to leave the scene. It got in a collision and ended up 219 feet away. So if I use that, figuring out that from the point of impact to the point of final rest, how much distance would it take to stop -- you know, what the speed would be to stop in that distance, and that comes out with 57. So now I know I'm pretty much on the right track. I do it again and I say, okay, well let's say maybe his break was fast, you got to account some of the energy that's involved in the

collision, maybe 20 -- you know, count some of that because it's a separation, so now you're at 54; so both of those speeds are correct. Now here was one of the errors I did before, which using the high drag factor, figuring out, okay, if he's going 79 -- is what I got in another problem -- well, -- or using I think one of the other exhibits I read -- if he's going 79, well 219 feet, he's gotta be -- the drag factor of the roadway is off the chart. It's not even possible. It's not even probable.

Q. And what is the drag factor?

A. The drag factor is the roadway coefficient. And of course, it's a little bit different in this case because I think we have a little bit different testimony, some that's wet, some that's dry, some that it's just starting to rain, some it's sprinkling, so -- but the bottom line is I don't really care about the factor at this point. I only care about the momentum problem with the energy. That's what I'm looking at. So factors are something else you can (inaudible). Now, but if I wanna add speed to the vehicle I'll look at the factors, but I don't need to add speed, I want the correct speed. I'm not interested in any other speed. I'm interested at the speed at impact. That's what I'm interested in. I don't care what was -- you know, myself as an engineer, I don't care what happened afterwards, or what happened before; just on the speed

related issue, I wanna know what happened at the moment of impact. That's what I'm looking for. And of course then that's the intersection. And I did wanna show you another thing. Going on the police photos and measurements, this would be -- I drew here a turn. There's one turn lane, as you're aware; it's the left lane. There was a pickup truck in that lane. And then there's the through lane, which actually is obviously meant to go into that development. I don't know if the development's active or not, but that's where it's meant to go. So this would be a normal turn pattern that a vehicle would make if you wanted to stay in that lane, you decided to go over to the left, you went into the curb lane, that would be where (inaudible) would be. The point of impact was a little bit to the right of that line, over in here, which tells me that the Honda was straight at that time. It had not yet started its left turn. And I think the witness who was in this left turn lane had indicated in his testimony that he wasn't quite sure if the car was gonna turn, or, you know, cut him off, or he was gonna cut off, he wasn't quite sure so he wanted to kind of stay back a little bit. And he said he was only going about 5 miles an hour. So, obviously the Honda got out in front of him, and I had that speed at about 8 miles an hour -- 8 to 9 miles an hour.

Q. Okay. So you have the Honda actually going a

little bit wide at the -- the angle that you have here because there was a vehicle in the actual turn lane that was still traveling forward?

A. Well, right, because you can't -- because this lane obviously is designated specifically as a left turn lane. In other words, if there's no other -- theoretically, a vehicle in this left turn lane could really turn into any one of those lanes. I mean, you're supposed to turn into the lane closest to the median or curb depending on your lane. But since it's one lane, this would be a design -- what's called a design turn lane. The people at this point designing the roadway would decide, okay, you can turn into any one of these lanes you want. I mean they wouldn't really care as an engineer. Now if this lane specifically was a designated turn lane, both of them, that's where you get the dots that you see on the road when you make a turn so you have to stay in your lane. So then you would be designated into a lane. But theoretically this witness could really have turned anywhere he wanted to in that -- that westbound lane of traffic, if that's what he wished to do. But apparently he was aware that vehicles may come over from that straight lane, so he was staying back an little bit and keeping, I guess, watch, so to speak, was his testimony.

Q. Well, and just looking at this, I mean, it's clear

that if a vehicle is going straight in this area, if this vehicle's turning here it's gonna get t-boned by that vehicle, right?

A. Well, yeah. I mean you'd have to kind of watch, you know, and I think that's what the witness was doing. He was theoretically watching to make sure -- you know, he wasn't really looking to the left, so to speak. He was kind of watching the vehicle to his right, which, you know, I guess you could look at however you want. But, I mean, theoretically when you -- normally when you pull out of there you'd be looking to your left, but he was kind of watching to the right cause he wasn't sure what that Honda was gonna do. He backed off a little bit, the Honda went in front, and that's unfortunately when the accident happened.

Q. Okay. So moving back, you have the -- after doing all of the equations and the math and checking your work, what is the speed that you have Michael Opsincs vehicle going at the time of impact?

A. I can show it here better. Let me just get that screen back.

At the moment of impact I have him going 55.9.

Q. Okay.

A. And the Cooper vehicle at 8.6. So you could probably safely say, if you wanted to round -- I would say

you always up, so it would be 56 and 9, really. I mean that -- and those are what's known as exact speeds. And as I indicated, the impulse data supports that. No other data I've seen in this case -- no other data in this case showed me an impulse or a moment in or out that's even theoretically close to what it could be. And sometimes that happens on a separation. Sometimes you can be accurate, and sometimes not, but the purpose to going back and checking everything is to say, you know, this is what you wanna do. Now is a -- you know, is a 55 mile an hour collision enough to separate the car? Absolutely. You know, (inaudible) probably 45, 46, if it hits you in a designated spot. And this, unfortunately, the way the collision happened, it just hit exactly in that -- in that part of the car that cause the (inaudible) body, separation to occur at that point.

Q. And cars aren't designed to be hit from that -- from the side --

A. No, actually side impacts, which are -- you know, people look at me all the time, a car is only designed to withstand 2 to 4 mile an hour impact in the door. That's what they're designed for. That's a federal standard. Obviously some companies go beyond that, you know. Obviously -- even so, if you take a, you know, 15 or 20 mile an hour impact, you know, problem is there's only so

much you can do to the doors of those cars. Otherwise you'd be trying to open a tank door every time you get in. You just -- you wouldn't be able to open the car door if it was (inaudible). So you have to structure your body seams to where you're hoping that collisions occur somewhere along the body, just like the front of the motor, now your cars meant to drop, and those kind of things. So you try to design the car the best way you can to -- to absorb as much of the impact as you can.

Q. All right. Well, your speed is significantly different than that of the State. Did you receive the materials that were supplied by the State in this case --

A. Yes.

Q. -- as far as the calculations?

A. Yes.

Q. Okay. Can you explain how yours -- your equation and your calculation is different from the State's?

A. Well, I think -- I got something yesterday and I think it took the speed from 60-something, and you probably know the number, to 80-something. And I believe that it was because there was a pre-braking involved which added 15 or 18 miles an hour on -- but I think there was a statement about -- where Opsincs said he possibly braked or something before impact. So now his speed is in the 80's. Well, there was no pre-braking. There's no evidence of pre-

braking. There's no photographs of pre-braking. There's no testimony from any witness of pre-braking. As I -- as I told the jury at the start, whether the witness says there's no -- no braking, or whether they say they're braking, I as an engineer am looking for that evidence. There is no evidence of braking.

Q. And physical evidence is what we're talking --

A. There's no physical -- right. I mean obviously the jury's the one that determines, you know, who says what, and that's not my bailiwick. The Court handles that. But as far as physical evidence is what I look for. Is there physical evidence on the photographs, or the roadway, or the police report, and the answer is no. The officer didn't mention that. There's no pre-braking in the photographs. There's no indication anywhere that there was braking involved. So, you know, in other words that's like saying, well, okay, if a witness said there's two seconds of braking before impact, now the speed goes to 110. Well, there's no mathematical basis for that. So a witness can say, you know, something, or a driver, but I still have to go with what I see. Well obviously it's not 110, and obviously it's not 80-some miles per hour because there is no pre-braking. So, there is no pre-braking before impact that I could see anywhere in the physical evidence. So adding on -- that's where the speed gets added on. And

secondly, I believe there was also something I saw -- I also believe that -- I saw -- saw something, I don't remember if it was the police or whoever, I'm not sure, but there was something about that the Honda was on a 20 degree angle.

Q. Well let's talk about the 20 degree angle then.

A. Okay.

Q. What's your opinion about that?

A. Well it's not. The photographs show us that there wasn't a 20 degree angle. The final rest position shows there was no angle. The measurements that the police have indicate roughly where the point in collision was in the roadway. And unfortunately we don't have a great photo from all the way back. We kind of have the police centering on the photo. So we have to kind of go by their measurements of where they seen this occur at, and -- and try to plot it based on that information. But, in other words, the car theoretically -- if -- if, in other words, the car was at a 20 degree angle -- I mean 20 degrees is pretty -- 20 degrees is like this. So that would mean the car, if it's at 20 degrees, would have cut the truck off and been in the trucks lane. Well it didn't cut the truck off because there's no testimony, I don't think. The driver didn't indicate that of the pickup. So the car is not in the other lane. The car is probably trying to make

the left turn, so he's gonna go straight and he's gonna make that -- you know, he's gonna try to go out far and make that left turn. So he is gonna make the left. There's no -- there's -- you know, that's my understanding. But there's no evidence to say that the gentleman in the Honda was cutting off the pickup. I don't think he was doing that. There's no evidence of that. So if he's at a 20 degree angle at impact that means he's over in this lane and he's over -- he's -- he's turned into that lane. So, if you take that and you take the angle, which I think I had 89 degrees, the car. If take the angle of 20 and add that on, degrees, that takes the speed from like 56 or 57 to 66, 68, somewhere in that ballpark.

Q. So it adds speed?

A. It adds speed, correct.

Q. All right.

A. So -- so, but the point is, is that it doesn't make sense as to where it occurred. Now the -- if the witness said that, well, you know, I had to stop because he was coming over and cutting me off, then obviously there would be more of an angle, and I could look at that and say, well, maybe you're right. You know, maybe if the car did cut you off it's a little bit closer. But I mean it's a substantial impact. You know, 55 is a substantial impact, so I'm not trying to tell you it's not. It's a

substantial impact. So -- but what I'm trying to say is is that I don't believe the car came over and -- the Honda came over and cut off the pickup. I don't think that happened.

Q. Okay. Now, we have kind of the cause of the accident, which is the red light (inaudible).

A. That's right. From my understanding the light was red, yes.

Q. Okay.

A. I don't dispute that.

Q. Are there other factors though? I mean we have the cause, but we also have factors that played into this accident, is that correct?

A. Sure.

Q. Okay. Can you explain other factors that may have played into this accident?

A. Well, you know, the other factors as I indicated, is the turn. I mean, you know, unfortunately that lane was meant to go straight, not to turn. You know, I can't speculate as to what somebody would have seen or not seen at any point in time. And I wouldn't try to do that. But I think that, you know, the -- the truck obviously was somewhat blocking the Honda cause it's higher. So there should be no dispute in that. But obviously the truck had slowed down, was keeping his attention to the right, so

that -- that's kind of a factor. A factor is is that -- and again, these are engineering factors that are not, you know, maybe related to what you guys are dealing with -- but obviously this lane was meant to go straight. And that's what it's meant for. It's meant to go straight; it's not meant to turn. So the fact that the vehicle actually got out in front of the pickup, and the pickup had his attention to the right, it's certainly not an excuse for anything. I'm just saying that normally you look to the left before you pull out. The light turns, you look left, (inaudible) you pull forward. So those are all some contributions as well. And as I indicated, this -- this lane is kind of -- the main thing, I mean, you know, had the car been behind -- again, I can't say if the impact would have occurred or not. I don't know, and I'm not gonna speculate. But all I can say is this lane was meant to be a through lane and that's what it's designed for.

Q. Okay. And the speed limit in this area was 50 miles an hour?

A. Right.

Q. Okay. Now, I don't think we went over how you -- in calculating the speed of Michael Opsincs vehicle, you did not use the two sections of the Honda.

A. Right.

Q. Can you explain that?

A. I -- I think I -- I tried to explain that a little bit. We kind of cut a little bit. But basically when you have a vehicle that separates, you have things going different ways. It'd be like saying, like, if, okay, I have a headlight explode and I have, you know, ten pieces of glass. And now I have to try to figure out a speed because I have ten pieces of glass all through here. Well, it may give me an average speed, it may give me similar speed, or it may not give me anything. I don't know. The problem is when -- you know, most accidents occur in about 40 milliseconds. In fact, almost -- and they go from 40 -- I say 40 -- 40 to 100 milliseconds is usually -- like if you download a computer in a car, almost all of the cars stop calculating, you know, the accident in 100 milliseconds. And the answer -- the answer is why, because the accident's over. An airbag deploys in about 10 milliseconds. There's a 1000 milliseconds in a second. That's how quick it is. So your airbag, before you even start moving forward towards the steering wheel in an accident, the airbag is already popping. That's how quick it is. So, the whole scenario, hit and over, in, you know, 40, 50, 60 milliseconds.

Q. What is 40 milli- -- I mean, can you -- you describe --

A. I can't even tell you how quick it is.

Q. Blink of the eye?

A. Yeah, less than the blink of an eye.

Q. Less than the blink, okay.

A. I mean that's how quick it is. So that's normally your accident scenario. What happens in a case like this is when the spits the vehicles stay together longer than normal because they didn't hit and spin off. They hit and as the vehicle began to separate itself, you know, you have -- you have the Oldsmobile making contact. And now there's some sideways push a little bit, obviously. So you have a little bit of sideways push, and now you have a vehicle begin to separate and start coming apart, as you saw in the picture in those two sections. So as that vehicle separates it stays together longer. So that's kind of what affects your momentum calculations and why when I showed you that screen before of the -- the, you know, one percent differential, that's what happens because the longer you stay together the more inaccurate your formulas becoming because the formula is based on the amount of energy at impact and the amount of energy going out immediately after impact. If you stay together, or let's say a section of the car hangs on a little bit, or your car drags, or someone drives to find the rest, then the formula is totally compromised because the -- the formula is not meant to -- to handle those kind of situations. So you have to

kind of go back and figure other things out. So when you -- - when you run the calculation you come up with the 60's -- or mid 60's, or 70's, or 80's, you -- you realize that there's no basis for that. So you have to go back to what I call the old traditional method and say, okay, let's start from scratch. Let's start from the old way and figure out what we think happened based on approach and departure angles and see what we get. So that's the way -- way I did it in this case. So I went back and I mathematically put it back together and said, okay, this seems to work, now let me check my other calculations with my impulse and my momentum data and find out if that backs it up; and it did. So then I knew we were on the right track.

Q. Okay. And all these calculations and everything, you talked about teaching. You teach this, right?

A. Yes.

Q. And you also -- you certify others --

A. Yes, that's correct.

Q. -- to do this?

What's -- is there a difference between teaching and certifying?

A. Yes. Most -- most officers get -- depending on the instructor, get certificates of attendance. There's probably not very few -- there's probably very few that are

actually certified. So the difference is is that individuals that teach certified classes, those officers come out with -- with certificates that they actually certified in that particular field. We certify them all the way up through accident reconstruction. And of course it's up to the courts obviously to make an individual -- whether they can testify or not, but we certify them with the proper, you know, school, and (inaudible), and those kind of things. So there's a difference. So out of every, let's say, 500 officers that do reconstruction -- I don't even know if there's that many right now in Florida -- but out of the 500 that do it there might be 35, 40 that, you know, have certificates that have accomplished that class. Something like that.

Q. You also -- are you -- you're a radar instructor?

A. Well I was, yeah.

Q. You were?

A. Yeah. I taught -- I don't teach it anymore, but I was, yeah.

Q. So you would teach law enforcement how to operate a radar?

A. Right, sure.

Q. Okay. So and also in your civil experience you have an extensive type of history with judging speeds?

A. Yes.

Q. And in your radar classes, you also -- you know, you teach officers how to get a good accurate estimation of speed?

A. Yes.

Q. Because the officers have to visually estimate speed?

A. Yes. And -- in other words, yeah, the officers, before they write up a radar ticket, they (inaudible) -- I think most people think they just look at the radar and it tells them. Well actually the radar is supposed to be the last thing they look at. In other words, the radar is confirmatory, which means that the officer is supposed to judge the speed of the car, estimate the speed of the car, identify the car, and then he looks at the radar. And then that would be confirmatory. And -- and most guys get pretty good at it. I mean --

Q. Well it's kind of guessing and checking, right? I mean you see a vehicle, --

A. Yes.

Q. -- then you see what the radar says, and then you can --

A. Right.

Q. -- get better at it?

A. That's right. And most guys get pretty good at it. I mean you see -- see officers running radar, they're

usually pretty -- pretty good. I mean the ones who pass the classes are usually pretty good at it. You can -- I can say out of 50 cars they'd probably have 49 pretty close to being right on the button.

Q. Well from that, I -- you would know, I guess, you know, what's important in getting an accurate visual estimation of speed?

A. Right.

Q. All right. Can you -- can you talk about some things that would be important in getting an accurate estimation of speed, such as would, I guess, distance from the object, that affect --

A. Well, yeah, distance affects it. Obviously there's a lot of things they can -- when I say average person, an untrained person would probably not know. In other words, sound could be an indicator. You see -- you hear a motorcycle coming, you think it's going 100 miles an hour, but it's going 40 because, you know, it's a bike and those kind of things. It's pretty hard to estimate, for most people, speed and time. And the fact is is that nighttime, you know, late afternoons -- in fact you probably don't see many officers run a radar at night because they have to see the car and at night it's hard to visually estimate the speed of a car at night, so most of them do it in the daytime. You also have the (inaudible)

the object itself. I mean sometimes a semi looks like it's going faster than it really is. Sometimes a small car looks like it's going slower than it really is. So, I mean, it's -- it's -- it's a pretty tough challenging field unless you're an expert, or you have that training to know how fast a car is going. So judgment -- I know people drive and, you know, you kind of know what your speed is in your car, but to judge someone else's speed, especially if you're moving, looking in a mirror, something like that, it's pretty difficult.

Q. Okay. You said moving officers. There's a reason they sit stationary when they operate radar. Is that partially because they -- you know, sitting still improves your accuracy?

A. Well, yeah. I mean most -- most officers do. I mean there is moving radar obviously, and -- and, you know, officers can -- can get trained in that as well to identify objects coming at them or going away, but it's a little bit -- it's difficult to do. I mean it's -- you have to -- there's a special set of training, even for moving officers. Some of them have the radar in back where a car would be coming up on them. It's pretty tough to figure out how fast a car is coming up. You know it's coming up on you, you know it's going faster than you are, but to judge the speed is kind of --

Q. All right. And -- and if you're going in one direction and the vehicle's going in another direction, that makes it even harder to estimate speed, --

A. Yeah.

Q. -- is that correct?

A. It's difficult, yes.

Q. Okay. Now, in your -- I know in a lot of your civil cases you actually will wreck cars on purpose.

A. Yeah, right.

Q. You go to a race track and basically ram the car into something?

A. We do.

Q. So you've seen quite a number of accidents actually happen?

A. Yes, I've driven somewhere in the neighborhood of 50 myself on staged collisions. And I've witnessed maybe 150, 60, somewhere in there. But, yes, I've been involved in a lot of staged collisions for either classes or, you know, civil cases that -- that -- some cases actually are big enough that we buy a car and we crash it, you know. So there are cases like that.

Q. When you -- when you see a vehicle hit another vehicle, that's a -- it's a pretty amazing thing to see.

A. Yeah. Yeah. It's -- most of our -- no, the crashes I do, I generally do not go over 30 miles an hour.

There are some guys that do it more. But to hit a stationary object at 30 is pretty amazing. It's pretty fast.

Q. And even that occurs in the blink of an eye?

A. In the blink of an eye, yeah.

Q. All right.

MR. SHOWE: If I may have one moment, Judge?

THE COURT: Okay.

MR. SHOWE: Did I miss anything, Mr. Swope?

RICK SWOPE: I don't think so.

MR. SHOWE: All right.

I have no further questions, Judge.

THE COURT: All right, folks, we're gonna take a bit of a break, about a five minute break; give you a chance to use the facilities, and get some coffee, and we'll be back at 2:15. Please don't discuss the case among yourselves until you've heard all of the evidence. Thanks.

(Jury out at 2:11 PM)

THE COURT: All right, thanks.

The jurors have departed. We'll be in recess for about five minutes.

(Recess at 2:11 PM, until 2:16 PM)

THE COURT: Okay, we're back on the record. Case number 11-114-CFA, State of Florida versus Michael Opsincs. Mr. Opsincs is present, his attorneys are present, the

State's present. And we're ready to bring our jurors back in.

(Private discussion between counsel.)

THE BAILIFF: Bring them in, Judge, or?

THE COURT: Are we ready to go?

MR. LINN: I'm sorry, Your Honor. I didn't -- I thought this was still on.

THE COURT: Okay. I'll wait until the AV units are up and running.

(Discussion not regarding trial.)

THE COURT: Okay, we're ready to proceed.

(Jury in at 2:18 PM)

THE COURT: All right, thanks. You all can have a seat.

And, we're ready to proceed?

MR. LINN: Mr. Swope, I apologize, these are kind of funny courtrooms. Your witness stands over there.

THE COURT: Normally in most courtrooms it would be right there, but actually it's over here.

RICK SWOPE: So you want me to move?

THE COURT: Yeah, if you would.

MR. LINN: I'd appreciate that. I feel like I'm cross examining the clerk right there.

RICK SWOPE: I kind of liked it over here actually.

THE COURT: Well in 80 percent of our courthouses around the state that's exactly where it is. We had a reconfiguration of the Martin County Courthouse a number of years ago because of some mold issues and so they did that.

All right, sir, you're still under oath.

Whenever you're ready, sir?

CROSS EXAMINATION

BY MR. LINN:

Q. Mr. Swope, you have accepted the measurements that Florida Highway Patrol made in this case, correct?

A. Yes, I think pretty much all of them. I don't recall any I didn't. But, yes.

Q. Okay. And you accept those measurements as accurate?

A. Right.

Q. And you used those measurements in your analysis of this case?

A. Yes.

Q. You also accept the proposition that the defendant in this case ran the red light?

A. Yes.

Q. And in the process you analyzed witness statements in this case?

A. Yes sir.

Q. And everybody in this case, other than one

individual involved in the case, said the light was green for Mr. Cooper and red for the defendant?

A. Yes I accept that.

Q. Okay. You also went out on scene and you inspected the traffic light out at the intersection of Pomeroy and Kanner?

A. Yes.

Q. You noted that there were no anomalies in the traffic lights.

A. Yes sir.

Q. Did you time this traffic light's cycles?

A. I think I did, but it wasn't something I -- I just looked at the gap, which I think was like 1.5 seconds.

Q. Okay.

A. Which means that's an all red, but I don't think I did anything beyond that.

Q. Okay. But that was at the time you -- you -- when you went in did that inspection that was a couple years after, or a year after the crash at least?

A. Yes.

Q. Did you go to Martin County and get any of the data about the timing of the traffic lights at the time, September 29, 2010?

A. I didn't, but I think my office called to confirm the gap time.

Q. Okay.
A. As I recall I believe my daughter called to check on the gap time. But I didn't check on any other things like, you know, lengths of time. I didn't think I needed that based on just what the witnesses said.
Q. Okay. So, with the gap time, or the all red time, --
A. Right.
Q. -- as we've used, that was a second and a half for you?
A. I believe -- I believe it was, yes sir.
Q. Okay. And you also have the Cooper's vehicle traveling at 8 miles an hour at the point of impact, correct?
A. Yes.
Q. And we did a deposition, right?
A. Right.
Q. And you handed over documents to me?
A. Right.
Q. And in fact you were able to calculate the time it would take the Cooper's -- Mr. Cooper to travel the 70 feet into the intersection before the collision, correct?
A. Right.
Right.
Q. And that calculation that you came up with was

about six and a half seconds?
A. That's right.
Q. Okay.
A. Correct.
Q. Now, with the Cooper's car traveling six and a half seconds, that was under green?
A. Yes.
Q. Okay. Let's assume for the sake of a hypothetical that the all red was one and a half seconds.
A. Right.
Q. Okay. That -- we would add the one and a half seconds of all red --
A. Right.
Q. -- to the six and a half to come up with 8?
A. Right.
Q. Eight seconds?
A. Right.
Q. All right. Now, we've also agreed on the fact that there is a driver reaction time of about a second and a half.
A. Right.
Q. Okay. So, we've got the all red of a second and a half, then we add on the reaction time Mr. Cooper had of a second and a half, that's three seconds, correct?
A. Well I don't know what you mean by reaction time.

Q. The reaction time meaning the driver perceives the light change, changes his foot off the brake to the pedal.

A. Oh, I thought you were talking about braking. Not – not the delay? You mean from when he sees a response of the light?

Q. Right.

A. Okay, yeah, it could be a second to a second and a half, right.

Q. Okay. A second is a -- let's -- let's give Mr. Opsincs the benefit and say a second.

A. Okay.

Q. Okay, so one and a half seconds of all red, plus the one second it would take Mr. Cooper to take his foot off the brake and put it on the gas?

A. Right.

Q. Okay. And then we travel -- that's two and a half seconds.

A. Right.

Q. And then we travel six and a half seconds out into the intersection?

A. That's right.

Q. Okay. And that -- so you add the two and a half to the six and a half, and fortunately I'm practiced in adding, that's nine seconds, correct?

A. Right.

Yep.
Q. So the light was red for nine seconds before that man went through the intersection?
A. That would be a maximum time, but you're right.
Q. Okay.
A. I mean based on that calculation and those figures, yes.
Q. Okay. Well, we also know from Mr. Opsincs statement that he said the light was green, correct?
A. Right.
Q. So that means that the last time he -- let's assume that he was telling the truth at the time.
A. Right.
Q. That the last time he saw the light it was green.
A. Right.
Q. That means the light would have had to turn from green to yellow.
A. Right.
Q. And do you have any idea what that cycle was? How long the light was yellow?
A. Four seconds.
Q. Okay. From green to yellow, for four seconds, and then we add that on to the nine seconds that we've got.
A. Right.
Q. That's 13 seconds.

A. Yes.
Q. How far would this man -- under your calculation of 55 miles an hour, how many feet would this man have traveled?
A. That you'll have to give me a second on.
Q. Yes sir.
A. In nine seconds that would be 720 feet.
Q. Okay. Can you give it to me in 13 seconds?
A. 1048 feet.
Q. Okay. And roughly about how far of a mile is that, percentage of a mile?
A. Well it's 528 feet every tenth of a mile.
Q. Okay.
A. So two tenths of a mile.
Q. Two tenths of a mile --
A. Right. Under the 13 second scenario; right.
Q. Okay. Under the way we just did that calculation, two tenths of a mile that man drove without looking at the light?
A. Right. If that -- if that's all correct, yes sir.
Q. Okay. Well, if you could step down, Mr. Swope?
A. I --
THE COURT: (Inaudible).
BY MR. LINN:
Q. If you could step down here?

A. Oh, I thought you said sit down.
Where do you want me to be?
Q. Right there is good.
A. Sure.
Q. You'd agree this is a document you prepared?
A. Yes.
Q. Okay.
A. I did.
Q. And your calculation has six and a half seconds right there?
A. That's right.
Q. Okay.
MR. LINN: Does Defense have any objection to me moving this into evidence?
MR. SHOWE: No.
THE COURT: As?
MR. LINN: (Inauidible).
THE COURT: State's next numbered exhibit?
MR. LINN: Yes sir, it's the State's next numbered exhibit.
THE CLERK: 122.
THE COURT: State's 122 is introduced into evidence.
(State's Exhibit 122 marked and received in evidence.)
BY MR. LINN:

Q. Now, you also did a diagram for me of the scene for the deposition. It was the Exhibit 4. I'm gonna show it to you.

Does that look familiar to you?

A. Yes sir. Correct.

Q. All right. Now, --

Okay, now, this was an overall intersection picture that you took, correct?

A. Well it's a Google picture. I got it from Google.

Q. Right. And I'm sorry, I guess you don't take pictures from satellites. So it's a Google picture.

THE COURT: It might be the NSA.

BY MR. LINN:

Q. And I don't recall you saying you taught at the NSA, so.

A. No.

Q. All right. So, and this is the line you broke through?

A. Right.

Q. And that was the line on the other exhibit that you had with Mr. Showe?

A. Yeah, exactly.

Q. And then you also drew this line?

A. Yes.

Q. And this line represented the Opsincs?

A. Correct.
Q. And you'd agree with me that this angle right here is not a 90 degree angle?
A. Absolutely it's not.
Q. Okay.
A. No.
MR. LINN: Any objection to me moving this into evidence?
MR. SHOWE: No objection.
THE COURT: Without objection it will submitted into evidence as State's 123.
(State's Exhibit 123 marked and received in evidence.)
THE CLERK: 123, Judge.
THE COURT: 123.
MR. LINN: Okay.
BY MR. LINN:
Q. Now, you were also a law enforcement officer, correct?
A. Yes sir.
Q. And in -- and in law enforcement office -- as a law enforcement officer you investigated crashes?
A. Yes sir.
Q. And you also had to determine who the at fault driver was in a car crash?
A. Yes sir.

Q. Okay. And in all those investigations that you did as a law enforcement officer, have you -- did you ever hold the person that obeyed the green light at fault when they were hit by someone that ran a red light?

A. Wow, I don't know.

Q. Okay.

A. I -- I -- I really don't know how to answer that. Probab- -- you know, I don't know if I ever charged anybody for that. I would say probably not. But again, anything involving a death, as you're aware, I would have taken to the State and they would have made the determination. You know, I mean that's the way it was when I was an officer. Like, your -- your office, you would have told me what charges to charge.

Q. Okay. So, let me get this straight, as a law enforcement officer have you ever assessed -- have you ever found -- I'm not talking about a fatality.

A. Okay.

Q. Okay? I'm talking about when you had to say this is the at fault driver in the car crash, had the person that ran the red light, have you found a person that ran the red light at fault before?

A. No. I don't think so.

Q. You've never? In all the car crashes that you've had to do and assess fault, the person that ran the red

light, you've never assessed them as the at fault driver?
A. Oh, I'm sorry, assessed them? No, they would have been at fault.
Q. Okay.
A. Yes. I'm sorry, I was confused by the way you answered -- asked that.
Q. Okay.
A. But no, I would have charged the person that run the red light, obviously.
Q. Okay. Now in this case, as part of your traffic reconstruction, there's the technology of an electronic data recorder?
A. Yes. Correct.
Q. And those are in cars -- the gross example is like the black box in an airplane, they're in cars now?
A. Yes.
Q. Okay. And in this case did you look for the electronic data recorder in the Oldsmobile?
A. Well we looked -- looked for it. I mean I looked for it but obviously in checking it was not available to be downloaded.
Q. Okay. So we don't have that data?
A. That's correct.
Q. So we gotta look at the physical evidence in the case?

A. That's right.

Q. And we also gotta listen to what the witnesses have to say in the case?

A. Well, again, I -- I try not to -- that's a -- for me that's a tough question. You say we try to listen to the witnesses. I review the witnesses, but that's up to the jury and you to determine who's telling what. My job is to look at physical evidence. So I try not to say who's saying what.

Q. Okay. And sometimes -- let me ask you about that cause you brought up that there is no physical evidence of braking.

A. Right.

Q. Okay. Let me ask you this. Isn't it true that in most cases when somebody applies the brake and stops do they leave physical evidence behind?

A. Sure. On a panic stop like this would be, yes. I mean if you brake to a normal stop, no. But if you -- if you come up into a collision situation, you hit the brakes and you squeal to a stop, or skid to a stop; absolutely you're gonna leave marks.

Q. Okay. I didn't say panic stop. I'm saying all the stops that are out there, most of them don't leave any physical evidence of stopping.

A. No.

Q. Just a regular old rolling up to the stop sign, press the brake, no skid marks, no nothing, no physical evidence behind.

A. Sure.

Q. And you -- I know you've investigated car crashes dealing with wet roads.

A. Sure.

Q. And isn't it true that it's -- that it is more difficult to lay down rubber on a wet road than it is a dry road?

A. To leave marks, yes, it is.

Q. All right, so it is possible in this case that the defendant may have -- it's a hypothetical. It is possible in a scenario like this where a person may have started applying the brakes and not left any physical evidence behind because they may not have panickly slammed on the brakes, right?

A. No. I disagree. This is not the accident where you would just kind of touch the brakes. This would be a panic one when a car is in front of you and you're going at 55 miles an hour. And also none of the witnesses indicated anything about braking. I know you talked about witnesses earlier. There's nothing to indicate brake lights, there's nothing to indicate -- and I think trained officers, by the way, which these guys were, would have been able to see the

marks on the roadway.

Q. All right. Well, --

Now, you've mentioned that you try and stick with the physical evidence.

A. Right.

Q. And now you've mentioned that all the other witnesses said they didn't see any brakes. But there was one witness that said he hit the brakes, right?

A. Yes.

Q. And that was Michael Opsincs in his statement.

A. Yes.

Q. Okay.

A. But he said he had a green light too.

Q. That's absolutely correct.

A. So.

Q. The last thing he said -- "The last thing I saw was a green light".

A. Right.

Q. Okay. He also said he was going about 70 miles an hour. And then he said 65, and then 60.

A. Yes.

Q. Okay.

A. Yes, you're right.

Q. Okay. But you said he was going 55 at the point of impact, correct?

A. No. I'm saying that's what the physical evidence shows. That's what I'm saying.
Q. Okay. And that's at the point of impact?
A. Yes.
Q. All right. Two tenths of a mile before that impact he could have been going faster than that?
A. Absolutely.
Q. You also had the opportunity to review this deposition of Dustin McRoberts?
A. Yes sir, I did.
Q. And you're aware that he also said that the vehicle was going 70 to 75 miles an hour?
A. I'm -- I'm aware of that, yes sir.
Q. Okay. And you also saw the witness statement of Steven Myer, correct?
A. Yes sir, I did.
Q. And you're also aware of the fact that he said that vehicle was going 70 miles an hour?
A. Yes sir.
Q. Okay. You're also aware of the testimony that Carl Luss gave of the speed of the defendant?
A. That speed I don't remember, but I remember he gave a speed.
Q. Okay. Are you also aware that he was an engineer?
A. No.

Q. And he's also trained in the way that estimates speed cause he's also a pilot.

A. I know he's a pilot, but I -- I didn't look at that. I forgot what speed he said. I'm sure --

Q. But again, -- and Mr. Luss was further down the road. He wasn't at the point of impact. So the defendant could have been going that fast at that point and slowed down?

A. Well, I don't -- right. Yeah I don't know what speed he was going before impact, you're correct. I can't tell you what he was going before impact. I can only tell you from (inaudible).

Q. Now, you inspected the Honda in this case, correct?

A. Yes sir.

Q. Okay but you didn't measure the crush in the Honda, correct?

A. No. There -- well, the -- no crush to measure. The car was split in half, so there was no crush to measure. It's a redundant statement.

Q. Okay. You measured the crush in the -- and you measured the crush in the Oldsmobile, correct?

A. Yeah, I looked at it, yes.

Q. Okay. And did you use any instruments or measurements in determining what the crush of the

Oldsmobile was?

A. No. I usually just use a tape at the scene. But then if I wanna do a crush analysis I put I -- I put it into a program which draws the car for me and it gives me an accurate photogram picture in 3-D. But I didn't do a crush profile on the car.

Q. Okay. But you -- you measured the impulse in this case, correct?

A. Yes.

Q. Okay. And doesn't impulse require you to know what the crush is of the vehicle?

A. No.

No, it's not --

Q. What is impulse to you?

A. Well impulse is just obviously the change in velocity and the change of speed. An impulse basically is the amount of energy going in and the amount of energy going out.

Q. Okay.

A. That's what the impulse is.

Q. Okay. And how do you determine what the energy going in is? What are the measurements you need for that?

A. I don't need measurements for that. What I need is I need to know how the vehicles collided, which I explained to the jury what the angles were. In other

words, I (inaudible) was approximately 89 to 90, which is what the Honda was going. And I used zero for -- for the Opsincs vehicle, which is the Olds. And then I used a departure -- what I call immediate departure; where the vehicles went upon immediate departure. Not where they ended up at. So I used that, and I think that was 7, maybe 7 or 8. And how they initially departed, I used that. I used the weights of the vehicles. And I used the distances that they traveled based on the police report. And that gave me the momentum in, the momentum out, and it gave me the impulse data. And it also gave me a vector diagram, which I showed you on pages 3 and 4, which matched the other data.

Q. Okay. Let me ask you about some of that -- that data. You mentioned that you -- in your momentum calculations you had the vehicle of the Oldsmobile at 3800 pounds, is that correct?

A. I think so, yes sir.

Q. Okay, well, we can look at that.

A. And I can get my sheet over here if you want.

Q. Well, I think I got your sheet right here.

A. Oh, okay.

Q. So we'll just -- we'll all look at it at the same time.

A. Okay.

Q. Okay. All right, formula inputs: the weight of vehicle one is 3800 pounds.
A. Right.
Q. Correct?
A. Correct.
Q. Okay, now, you used the data sheet regarding the weight of the Oldsmobile, correct?
A. I believe so, yes.
Q. And you used that off of your -- your -- your program is Expert Auto Stats, right?
A. Right.
Q. Okay. And that was also provided to me.
And let me roll over here. That was -- and the data that they told you is the car weighed 3470 pounds, correct?
A. Right.
Q. All right. Now, it had the defendant in the car.
A. Right.
Q. Okay, so how much does the defendant weigh?
A. I don't know, I guess 170, 180 pounds.
Q. Okay, but it's safe to say that he doesn't weigh 332 pounds?
A. Right.
Q. Okay. Where is the rest of the ballast that you consider that went into that car other than the defendant?
A. Well I considered, there's obviously some fuel on

board.

Q. Okay.

A. And there's probably some fluids on board.

Q. Okay.

A. When I looked at the car I didn't see anything specific like that he was carrying around weights or anything like that in the car, so I just made it 3800 pounds.

Q. Okay.

A. I figured that was a pretty good ballast for the car.

Q. Okay. So you didn't inspect the trunk to see if there was anything in the trunk?

A. I think I had pictures from the police about the trunk. I didn't see anything in there specifically that weighed anything more than normal.

Q. Okay. Anything unusual in the -- in the -- in the defendant's car?

A. Well, I don't know. I tried to look at what was at the scene. The defendant's car was outside in a lot. I didn't know what -- and I think there were pieces, if I recall, some of the Honda pieces were in the Oldsmobile, or on the Oldsmobile, or somewhere. This had been a few years after the accident. So it's hard to measure, you know, what it was on that -- you know, what was in the car at the

time I looked at it. So I tried to just (inaudible) of what I thought from the police photographs at the scene of the accident. So I made it 3800 pounds.

Q. Okay.

A. And again, if I'm off a couple hundred pounds either way it doesn't hurt.

Q. Okay. Well isn't it true in these calculations, it may not be much, but the heavier the car is that -- you slow the defendant's vehicle down?

A. What do you mean slow it down? It would add to it. In other words, -- in other words, if I added a lot more weight to the car.

Q. Correct.

A. Okay, and the car traveled the same amount of distance, obviously that's a heavier weight going a certain amount of distance, so that changes the fact. Just like you changing degrees. If you change the degree you add speed or subtract speed --

Q. Right.

A. -- depending on the -- on the degree. So, it's not -- it's gonna affect it probably every hundred pounds maybe -- maybe two, three tenths of a mile an hour.

Q. Okay.

A. So, you know, if you're off a thousand pounds, that's different.

Q. Okay. So, -- and then you also have here the weight of vehicle two, which is the Cooper's car, at 2700 pounds, correct?

A. Right.

Q. Okay. Now, the Cooper's car had five occupants in it, right?

A. Yes.

Q. And you took that into consideration when you took a look at the stats sheet with the Honda, which you have it at 295 pounds?

A. That's right.

Q. Or 2295 pounds?

A. Right.

Q. So you added 400 pounds for essentially two 3 year old children, an 11 year old child, and the -- and Mr. Cooper?

A. Right.

Q. Okay. That to you is total 400 pounds?

A. I didn't know what it was. I can only estimate. I didn't ask you for the weights. I -- you know, I only could do an estimate, and that's what I did.

Q. Okay. Well I mean their weights is part of the physical evidence in the case, correct?

A. Well I didn't ask you for those. They weren't in the reports, so I just made an estimate of what I thought

the car would be and, you know, I just based it on my experience, and that's what I did.

Q. Okay, so the 400 pounds for four -- four people, and also we've got gas I guess?

A. Yeah, there's should be some gas in the car, sure.

Q. Okay. Also, regarding your calculations in this case, -- let me go down here -- you have the after an impact speed of vehicle one as 35 miles an hour.

A. Right.

Q. What is the data that you need to be able to make that calculation?

A. What I looked at first of all was the distance that vehicle, number one, went. I looked at a coefficient of friction. And I looked at the fact, and I believe there was some rolling resistance to get there. In other words, I don't think he braked that whole way, as I explained before. I think there was some steering input into it. In other words, he may have steered the car a little bit. He may have continued on the brake, but not quite as hard after the post collision, and he ended up 219 feet away.

Q. Okay. So the distance that you had was 219 feet?

A. That's what the officer had, yeah.

Q. Okay. And you're accepting that measurement as accurate?

A. Absolutely.

Q. All right. What was your drag factor?
A. I'm not sure what I used on that right now. I think I used like a .4, or something like that. I'm not sure exactly what I used. Cause I say, it's not on this paper. I just -- I used whatever the -- the friction value was. I think the officer used almost the same friction value. I think he had a friction value that he used, and I think I used those.
Q. Okay. Do you know where you can find the friction value that you used in this calculation?
A. I don't know if it's in my paperwork or not. I'd have to look.
Q. Okay, but you would agree with me, knowing the friction value that you used in this case --
A. Right.
Q. -- is important in calculating the overall speed in this case?
A. No. No. Not with this formula. I don't -- I don't really need the friction values. I need the approach and departure angles.
Q. Right.
A. These secondary things are just that, they're secondary to your -- to your formula. Your impulse data and your momentum in and out is what's important. Whether I use a friction value of 7, or 4, or 3, or 2, doesn't

really matter. I'm only interested at the moment of impact; from the moment of impact on. Then if you look at those calculations it will kind of back -- you backdoor into it to see if you're correct or not. So in other words, it's not that important. It's not that important of a deal. I don't really care what the factors are. It has nothing to do with the overall momentum problem. Now, when I look at the 219 feet later, as I indicated on that sheet you marked, then I look at that and say, okay, what (inaudible) would the speed be from that point to the point of collision? I think that's where we came into the 50's.

Q. Okay. So your testimony is that number right there is not that important?

A. It's -- it's not that important unless I'm coming up with the wrong momentum calculation, or I can't figure out where the vehicle is. Like there could be a secondary collision, it could be (inaudible) over there. We don't know. There's some rolling resistance on that 219 feet.

Q. Okay.

A. So I estimated what it would be from the after impact speed to the final rest position.

Q. Okay. So it then -- if it -- if the numbers aren't coming out correct, then that number is important, correct?

A. If they're not coming out correct, but they are

coming out correct.

Q. And you need to know what the coefficient of friction is to find that number, correct?

A. Again, yes and no.

Q. What is it?

A. I used the police coefficient of friction which I have -- I don't know if it was 3 or 4, I don't know. I have to look at that sheet. It's not important to me what it is. It might be important to you. It's not important to the overall incident. It's only important that I have the momentum speed and the impulse. And again, I can't tell for sure what it was exactly on the road because we have witnesses, or a witness that says -- I think Mr. Cooper indicated it had not started raining until after the accident, which means a dry road. We have other witnesses say they turned their wiper off and it was sprinkling. Then we have other witnesses say it was raining. So the numbers could be vast because the question is, is the road dry or wet? So again, back to witnesses, going back to that, that's why witnesses for me are not reliable because you have some say it's raining, some say it isn't. So it's dry or it's wet. So this doesn't -- it's not really that important. I can't give you the coefficient exactly, so I used the police information. It's not that important to me. We know where the car is, we know how the car got

there, so it's not that important to me.

Q. Okay. I didn't ask you if you thought it was important or not. I didn't ask you about witnesses. You don't know what the coefficient of friction is?

A. I'll have to look at the police information.

Q. I used the initial friction value of .3. I used a .35. And I used post collision for the Honda of .3. And, let me see if I used another one. I think I come all the way up to .6. But I used the dry road as well because based on the different testimony. So I used a .6, I used a .3, and I used a .35. And I used distances of 219 feet for the Olds. And I used two distances for the Honda; one was 73 feet, and one was 65 feet. And then I signed and cosigned those.

Q. Okay and we'll get to that. You mentioned that you factored in rolling resistance.

A. Yes.

Q. Okay, which is always important in doing a traffic reconstruction because that -- there's no evidence that all four tires were locked up on the Oldsmobile, right?

A. Right, there's -- well there's no evidence any were locked up.

Q. Okay.

A. Right.

Q. So, that, because it's -- so you have to reduce

the coefficient of friction when you do these type of --

A. Right.

Q. -- calculations, correct?

A. Right. Right.

Q. How much did you reduce the coefficient of friction in this case?

A. I think I looked at a .1.

Q. Okay.

A. Which would be a rolling resistance friction.

Q. Okay. And so you went from a .3 to a .1 with your adjustment?

A. Yes. Right because I assumed -- based on your question I assume one thing, that there was some braking to final rest. Then number two is, -- I assumed two things. Number one, there was partial braking at some point. And then there was a rolling from impact to final rest. So -- and of course it's a little different on the friction values, cause again, you got the wet road versus the -- the dry road, which we really don't know. So, that's why -- that's why these numbers -- the friction values really have nothing to do with anything. It's like, it's a red herring. It's like looking for, you know, --

MR. LINN: Judge, I'm gonna object. It's non-responsive to the question.

THE COURT: And Defense?

MR. SHOWE: I think he's answering his question, Your Honor.

THE COURT: The objections sustained. It is non-responsive.

RICK SWOPE: Sorry.

MR. LINN: Okay.

THE COURT: Move on to the next question, please.

MR. LINN: Okay.

BY MR. LINN:

Q. Let me ask you about the departure angle of vehicle 1, you have as 7 degrees?

A. Yes.

Q. Okay. How did you calculate that?

A. I calculated that by putting the vehicles together just in a -- in a drawing on the computer and figured out which way they departed. So in other words, I put the vehicles together at the point of collision as I indicated to you in another example, and how they -- they hit each other, and what they -- and I drew a line through the center of both vehicles which would be the center mass. So we have one vehicle -- let's see, (inaudible), but we have one vehicle obviously --

Okay, thanks.

Q. It should be in here, or if that's easier for you. (Inaudible).

A. I'm sorry, I don't mean to (inaudible).

Thank you, sir. There you go. That's it.

What I did is, obviously here is, in other words, the clock position sometimes is a little different. Sometimes you have programs that it's zero, but here the zero's to the right. So in other words, I had the Opsincs vehicle coming in at, I called it zero angle. Remember one car doesn't matter. And the other car I had between 89 and 90. So basically what we have here is once the impact occurs Mr. Opsincs vehicle goes off towards this direction up here. We have the other impulse go off. I think the next page will tell you. And we have the second vehicle which goes off in that direction. Now that's not where it ends up at, it's just where the force is when the vehicles separate. So generally your departure angles on a true t-bone accident are very close together. Now obviously if -- if you have a vehicle, let's say, that hits the rear of the car, then your departure angles are much greater because now the cars gonna take off in one direction, and the other car's gonna go in the other. But this is what I call basically a true t-bone, so the initial separation between the vehicles should be very small; normally 2, maybe 3 degrees. So we have roughly about a 2 degree separation. So that's -- that's how I did it, and when I checked my numbers on the impulse data it came back in two vectors

which I knew were correct.

Q. Okay. Well when you come up with these angles, do you come up with these angles because you look at the crash diagram and you figure out where these vehicles wound up at?

A. I looked at both. I looked at the police information.

Q. Okay.

A. I looked at their measurements. I looked at the diagrams. I looked how they put the cars together. I looked at their photographs at the scene. Of course I looked at the vehicles, as you're aware. And I put that together, and I believe that was the initial separation angles between the two.

Q. Okay.

A. I mean, could I be off a degree or so? Yeah I could be. But I think I'm pretty close. I think 2 degrees almost tells me exactly what I need to know.

Q. Okay. So, and again, I'm trying to figure out where this 7 degrees came from. You would have taken, like a -- you would have taken this intersection, correct?

A. That's right.

Q. And you would have said -- you would have known that the first half of the vehicle of -- of the Cooper's vehicle was here, correct?

A. At final rest, yes.

Q. At final rest.

A. But remember, and I don't -- maybe I -- I didn't mean to confuse you. I don't need a dia- -- I don't need anything except two vehicles drawn together. And the roadway doesn't matter. I can put the vehicles here for all -- all that the computer cares. I can put them on the grass, or on top of a building. I'm only trying to figure out, drawing the two vehicles together, what's the separation angle at this t-bone accident? When did they start coming apart? And remember, they stay together a little longer than normal because the vehicle is breaking apart, and the other one is continuing on. If they don't -- it's not like a baseball where you hit a baseball and the baseball takes off immediately. The vehicles stay together for a longer period of time. That's why the angles are close. I don't need the diagram. I can put it on the diagram. You're right, I can do that later to look at it, but I don't need any diagram or aerial to do it. I can just put the vehicles together and figure out the departure angles.

Q. Okay. And you would agree with me that when you do this type of analysis that when you calculate what the departure angles are it's very critical coming up with accurate speed, correct?

A. Well sure. Absolutely it is.
Q. Okay. And that's something that -- and you're aware of the person named John Daley, who's an accident reconstructionist?
He wrote the article "Fundamentals of Traffic Reconstruction".
A. That's somebody we don't use. I don't know. I guess he did. I guess he did for (inaudible).
Q. Okay.
A. But he's certainly not an engineering book that -- that I would use.
Q. Okay. Well let me take a look at the first page of the notes that you made in this field.
A. Right.
Q. Okay?
A. Yeah.
Q. You wrote, "John Daley", right there.
A. Daley is mentioned in (inaudible) book, but (inaudible) book is the one that I use. I have the book with me actually.
Q. All right.
A. Right, Daley is mentioned in (inaudible) book, correct.
Q. Okay, but it's still important to figure out what the angles are cause if the angles are off by a little bit

that can affect the speed, correct?

A. Absolutely.

Q. Okay.

A. No doubt.

Q. Now you also make the calculation that this was a t-bone accident by the 90 degrees right here, --

A. Yes.

Q. -- correct?

A. Right.

Q. Okay. And you use that because you hang your hat on what Brandon Wells said about this, that the -- that Todd Cooper's car was going straight, correct?

A. No. I'm not hanging my hat on that. I'm just telling you what he said.

Q. Okay.

A. As to where I found the police measurement information was where I told you. It was not in the (inaudible) of Mr. Wells. So that's what I used. I mean he did say that, you're right. But that's what I used.

Q. Okay. And how did you determine where the -- the point of impact was from the police report on that Google Earth map that you made?

A. Well I didn't use the Google Earth map for that. I used the police photographs and what I could see at the scene, and did the best I could as to where I believe

looking at the police diagram, looking at the police measurement information, and looking at the photographs as to where that was in the roadway.

Q. Okay. So basically where that was is gonna be your interpretation of what the police data was?

A. Yeah. I mean that's -- I think they were correct on that, yes. I -- I have no reason to dispute them.

Q. Okay. What's the -- what's the purpose of tread in a tire?

A. Well tread in a tire is for water separation in the rain. It basically keeps the tire on the road, so to speak. It adds presence of the tire to keep you from hydroplaning, really. So the deeper the tread, the more fast you can go, and the more water you can separate off the road surface and keep your tire down.

Q. Okay. And you're aware in this case there are people that testified that the road was wet?

A. Yes sir.

Q. Let me ask you this, how much are you getting paid by the Defense?

A. I bill on a State case like this, $150 per hour.

Q. Okay. How many hours have you worked so far?

A. I'm guessing maybe 30 hours over the past -- since 2011, maybe 35.

Q. Okay. Well let's go with 30 hours. Do you know

what 30 times 150 is?

A. Not off the top of my head. I usually (inaudible) calculator. Do you want me to figure it out for you?

Q. Sure.

A. I know I probably should off the top of my head, but I don't wanna give you the wrong number.

4500.

Q. Okay. And that's not including the $600.00 you made off the deposition for -- when we had to depose you, correct?

A. Well, right, but I don't like that term "made off of you". I mean you took my deposition, that's what I charge, so.

Q. You charged six hundred bucks and that was for approximately an hour and a half worth of a deposition?

A. I charged -- right. I charge a two hour minimum for depositions, that's correct.

Q. That we did over the phone?

A. That's correct.

Q. Now you did mention that if the angle -- if this isn't 90 degrees, if the car was turning into -- that would affect the calculation and make the speed -- this speed higher?

A. Yes sir.

MR. LINN: I don't have any further questions,

Your Honor.

RICK SWOPE: Thanks, Your Honor. I appreciate it.

THE COURT: Hold on, there may be some redirect.

Redirect, Mr. Showe?

MR. SHOWE: Yes sir.

REDIRECT EXAMINATION

BY MR. SHOWE:

Q. Okay, so --

A. You want me up here?

Q. You can have a seat. (Inaudible).

All right, Mr. Swope, did -- so it's my understanding that -- that if the vehicles were heavier they were going faster in your calculations?

A. Yeah they can be. Again, it depends -- depends on the angles and separation. Yeah, I mean, it can vary either way. I mean, it's hard to make a blanket statement like that because there are things that affect it you know.

Q. Right.

A. So, I mean, if the vehicle's heavier and the travels that distance or farther, yes, it can affect it.

Q. Okay. And the State, they talked to you about the -- the 400 pounds that you calculated for -- for 5 people.

A. Right.

Q. Was that based on roughly, I guess, a 200 pound

male and four kids?

A. Yeah, I -- I think something like that I figured out, right.

Q. Okay.

A. I mean it was just -- like I said, it was an estimate. I didn't know. I didn't ask for what each individual person weighed. I probably could have done that, but I didn't feel that was something I really wanted to do. I figured I would do an estimate on it, and, again, the weight difference of, you know, 2, 300 pounds really is infinitesimal.

Q. It's infinitesimal --

A. Right.

Q. -- as to the final speed?

A. Right.

Q. So that's kind of a red herring?

A. It is a red herring, yes.

Q. Okay. You also said the friction coefficient is a red herring. What did you mean by that?

A. Well, there's such a difference in this case as far as I indicated to the State. You know, we have differences; was it wet, was it raining, was it sprinkling, was it dry? I mean, look, I don't know. I don't know what the conditions were. Everyone says something different. So I don't know what it is. I can only make estimations on

friction values. And, you know, friction values can affect the ultimate speed quite a bit. So I didn't wanna do that. I wanted to be conservative for both parties as far as what was the acceleration of Cooper, and what was the deceleration of Mr. Opsincs. So I looked at those issues. But what I wanted to know was what the impact speed was. And I wanted to know, you know, in a range, did they come out correctly. In other words, if I was off with my post collision speeds, which I used, you know, rolling resistance, and I used other different methods that I explained before. If I was off on that it would come out in my momentum calculations and my impulse data. So I would have known that I was off because that would have told me that the calculations I put in for the -- for the speeds and the friction values post collision were off. So I would get an error. So by being conservative I thought I was correct. And I have two -- let's see, three different types of formulas, which I indicated, which show that those numbers are correct. Nobody else has that. There is no other ones, you know. Those are the numbers that come out to be correct. So, yes, I don't know exactly what it is, but I have to somehow balance the fact that the roads are either wet or they're dry. So you have to use that in there. So if I was too high in the friction value, it would add too much speed. And if I was too low, it would -

– it would cause to much of a speed -- a speed reduction. And I -- I felt, as I told your office, I don't -- I don't really -- I don't guesstimate speeds. I'm telling you what the speed is. And that's what the speed is.

Q. 55?

A. That's what it is.

Q. Okay. Now, you talked a lot about how you don't put so much stock in witnesses. Does that kind of tie into what we were talking about, about estimating speed perhaps? And what I mean by that is, you know, one witness such as -- let's see, the -- the individual traveling away from the accident who did the u-turn, Mr. McRoberts, he's traveling 45 miles an hour. You know, he's traveling away from it.

A. Right.

Q. So as we said, his estimation would likely be flawed.

A. Well, --

Q. Right? Is that kind of --

A. Well, yeah, it would --

MR. LINN: Your Honor, I'm gonna object to the question.

THE COURT: As?

MR. LINN: Can we approach?

THE COURT: Sure.

(Begin Sidebar at 3:03 PM)

MR. LINN: First of all, it's leading. And second of all, --

(Audio cuts out completely until after sidebar is over.)

(End Sidebar at 3:03 PM)

THE COURT: The objection's sustained.

BY MR. SHOWE:

Q. Let me rephrase that question. Can you explain to me the reasons why a witness, their estimation of speed could be flawed?

A. Well, I mean, obviously I don't know what kind of training the person has. And, you know, going away from a scene, or looking in your mirror trying to estimate someone's speed, I mean, it's difficult. Even -- I mean, there's a reason that you have trained people that do that. Most of them obviously are officers or other individuals, but it's difficult to estimate exactly what the speed is, especially if you're going slow and somebody's -- you could be going, you know, 15, 20 and somebody passes you at 50 and it seems like they're going much faster. I mean, it's hard to estimate the speeds, you know, as it is. Even for a certified person it's difficult. So that's why I don't particularly rely on that information. I rely on other data, you know.

Q. Right. Also, you know, if a witness just saw that collision that would be a suspect -- if they just saw the -

- the accident and not approaching to the accident, what would your opinion be of their -- you know, of their estimation of speed? Would that be accurate?

MR. LINN: I'm gonna object to leading, Your Honor.

THE COURT: Sustained.

BY MR. SHOWE:

Q. What would your opinion be of someone just seeing the accident, not seeing approaching the accident? (Inaudible).

MR. LINN: Objection, Your Honor; calls for speculation.

THE COURT: Response?

MR. SHOWE: Yes, Judge, can we approach?

THE COURT: Sure.

(Begin Sidebar at 3:05 PM)

MR. SHOWE: He's an expert. He's trained --

(Audio cuts out completely until after sidebar is over.)

(End Sidebar at 3:05 PM)

BY MR. SHOWE:

Q. Mr. Swope, the State talked about what we're paying you. You get paid a lot more in civil cases, don't you?

A. Yes.

Q. Okay. What's your per hour on a civil case?

A. $300.00.
Q. Okay.
MR. SHOWE: I have no further questions.
RICK SWOPE: Thank you.
THE COURT: Okay.
MR. LINN: Just one question, Your Honor.

RECROSS EXAMINATION

BY MR. LINN:
Q. Mr. Swope, despite our disagreement over the numbers that you recall, going 55 miles an hour on those road conditions is still going too fast, correct?
A. Yes.
Q. And you made that statement in your deposition, correct?
A. Yes.
MR. LINN: Nothing further.
RICK SWOPE: Thank you, sir.

REDIRECT EXAMINATION

BY MR. SHOWE:
Q. By too fast, do you mean over the speed limit?
A. Yes.
MR. SHOWE: No further questions.
THE COURT: Okay, thank you, sir. You can step down. Thanks for your help.

* * * * * *

I, Jessica O'Brien, hereby certify that the preceding pages numbered 2 through 86, inclusive, constitute, to the best of my ability, a true record of the electronically recorded proceedings held on July 24, 2013, in State of Florida versus Michael Opsincs, Case No. 432011CF000114.

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Jessica O'Brien

STATE OF FLORIDA
COUNTY OF ST. LUCIE

Sworn to and subscribed before me this 17th day of August 2013, by Jessica O'Brien, who is personally known to me or who has produced Florida Driver's License as identification.

_____

Notary Public, State of Florida at Large
My Commission Expires: