

1 UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF NEW JERSEY

3
4 EAGLEVIEW TECHNOLOGIES,
5 INC., and PICTOMETRY
6 INTERNATIONAL CORP.,

7 Plaintiff,

8 v.

9 XACTWARE SOLUTIONS, INC.,
10 and VERISK ANALYTICS, INC.,

11 Defendant.

CIVIL ACTION NUMBER:

1:15-CV-07025-RMB

Jury Trial

Pages 466-594

12
13 Mitchell H. Cohen Building & U.S. Courthouse
14 4th & Cooper Streets
15 Camden, New Jersey 08101
16 September 10, 2019

17 B E F O R E:

THE HONORABLE RENÉE MARIE BUMB,
UNITED STATES DISTRICT JUDGE

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DIRECT EXAMINATION OF CHRISTOPHER LEE

472

PERSHING BY MR. DE VRIES:

PLAINTIFF EXHIBITS PTX-2, PTX-3, PTX-4, PTX-5,
PTX-6, PTX-15, PTX-16, PTX-310, PTX-456, PTX-457,
PTX-458, PTX-459, PTX-478, PTX-509, PTX-510,
PTX-511, PTX-563, PTX-632, and PTX-896 WERE RECEIVED
IN EVIDENCE

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09:59 1 THE DEPUTY CLERK: All rise.

09:59 2 THE COURT: Good morning.

09:59 3 RESPONSE: Good morning, your Honor.

09:59 4 THE COURT: You all set?

09:59 5 MR. DE VRIES: Yes, your Honor.

09:59 6 THE COURT: Okay. Great. The jury is here, so we'll

09:59 7 bring them in.

09:59 8 Oh, so a question was asked about introducing the

09:59 9 exhibits. That's great. If you have your witness on the

09:59 10 stand and you just move the entire binder in, yes.

09:59 11 MR. DE VRIES: Yes, your Honor.

09:59 12 And shall we read each of the exhibit numbers into

09:59 13 the record at that point?

09:59 14 THE COURT: Yes. As long as you're certain that

09:59 15 they're going to be asked of the witness, yes.

09:59 16 MR. DE VRIES: I am certain.

09:59 17 THE COURT: Yes. Or you can do it when you -- yes,

09:59 18 let's do it that way.

09:59 19 MR. DE VRIES: Okay. Yes, your Honor.

09:59 20 THE COURT: Is your witness here?

10:00 21 MR. DE VRIES: Yes.

10:00 22 THE COURT: Yes, okay.

10:00 23 And while we're waiting, one of the jurors has asked

10:00 24 if they could watch the FJC video again. So I'm contemplating

10:00 25 ordering them lunch one day this week and having -- allowing

10:00 1 them to watch it again, but we can talk about it.

10:00 2 THE DEPUTY CLERK: Are you ready?

10:00 3 THE COURT: Yes.

10:00 4 We can talk about it.

10:00 5 THE DEPUTY CLERK: All rise.

10:00 6 (The Jury entered the courtroom at 10:00 a.m.)

10:01 7 THE COURT: Okay. Good morning, ladies and

10:01 8 gentleman.

10:01 9 RESPONSE: Good morning.

10:01 10 THE COURT: Hope you had a good evening. Have a

10:01 11 seat, thank you. And we thank you all for being here on time.

10:01 12 So, as I indicated yesterday, we are going to begin

10:01 13 with the plaintiff EagleView's case. So I'll call upon

10:01 14 Mr. Alper.

10:01 15 MR. ALPER: Yes, your Honor. Plaintiff calls as our

10:01 16 first witness Mr. Chris Pershing.

10:01 17 THE COURT: Okay. Mr. Pershing, come forward,

10:01 18 please.

10:01 19 THE DEPUTY CLERK: Good morning.

10:01 20 THE WITNESS: Good morning.

10:01 21 THE DEPUTY CLERK: If you could please take a step in

10:01 22 the witness stand, place your left hand on the Bible and raise

10:01 23 your right hand.

10:01 24 **(CHRISTOPHER LEE PERSHING, HAVING BEEN DULY**

10:01 25 **SWORN/AFFIRMED, TESTIFIED AS FOLLOWS:)**

10:01 1 THE WITNESS: I do.

10:01 2 THE DEPUTY CLERK: Can you please state and spell
10:01 3 your full name for the record.

10:01 4 THE WITNESS: My full name is Christopher Lee
10:02 5 Pershing, C-H-R-I-S-T-O-P-H-E-R, L-E-E, P-E-R-S-H-I-N-G.

10:02 6 THE DEPUTY CLERK: Thank you.

10:02 7 THE COURT: Okay, Mr. Pershing, have a seat. Make
10:02 8 yourself comfortable, and if you could scooch the microphone,
10:02 9 please, closer to you.

10:02 10 THE WITNESS: Okay.

10:02 11 THE COURT: Keep your voice up and there is water in
10:02 12 the pitcher if you should like a cup. Okay?

10:02 13 THE WITNESS: Thank you.

10:02 14 THE COURT: Mr. De Vries, yes.

10:02 15 MR. DE VRIES: May I proceed, your Honor?

10:02 16 THE COURT: You may.

10:02 17 (DIRECT EXAMINATION OF CHRISTOPHER LEE PERSHING BY
10:02 18 MR. DE VRIES:)

10:02 19 MR. DE VRIES: Your Honor, we would like to begin by
10:02 20 offering into evidence some exhibits in a binder that the
10:02 21 parties have agreed may be introduced. Those exhibits numbers
10:02 22 are PTX-2, PTX-3, PTX-4, PTX-5, PTX-6, PTX-15, PTX-16,
10:02 23 PTX-310, PTX-456, PTX-457, PTX-458, PTX-459, PTX-478, PTX-509,
10:02 24 PTX-510, PTX-511, PTX-563, PTX-632, and PTX-896.

10:03 25 THE COURT: Any objection?

10:03 1 MR. BROMBERG: No objection, Your Honor, except to
10:03 2 reserve our rights on the inventor notebooks.
10:03 3 THE COURT: Okay. All right.
10:03 4 Okay. In evidence.
10:03 5 (PLAINTIFF EXHIBITS PTX-2, PTX-3, PTX-4, PTX-5, PTX-6, PTX-15,
10:02 6 PTX-16, PTX-310, PTX-456, PTX-457, PTX-458, PTX-459, PTX-478,
10:02 7 PTX-509, PTX-510, PTX-511, PTX-563, PTX-632, and PTX-896 WERE
10:03 8 RECEIVED IN EVIDENCE.)
10:03 9 MR. DE VRIES: And, your Honor, just solely for
10:03 10 purposes of identification, we will note for the record that
10:03 11 there are some demonstratives. We are not offering those
10:03 12 demonstratives into evidence, but they are identified as PDX
10:03 13 2.1 through PDX 2.20.
10:03 14 THE COURT: Okay. Thank you. And yes, you may
10:03 15 approach. Thank you.
10:03 16 BY MR. DE VRIES:
10:03 17 Q. Good morning, Mr. Pershing.
10:03 18 A. Good morning.
10:03 19 Q. Would you please introduce yourself to the jury.
10:03 20 A. My name is Christopher Pershing. I go by Chris.
10:03 21 Q. And, Mr. Pershing, where do you live?
10:03 22 A. I live in Oro Valley, Arizona.
10:03 23 Q. And, Mr. Pershing, are you currently an employee of the
10:04 24 plaintiff in this case, EagleView?
10:04 25 A. Currently, I'm not, no.

1 Q. And were you previously an employee of EagleView?

2 A. Yes.

3 Q. What position or positions did you hold at EagleView?

4 A. So, I was a founder of the company, incorporated --

5 THE COURT: Mr. Pershing, can you bring the
6 microphone closer?

7 THE WITNESS: Oh, sure.

8 I founded the company. I incorporated it. I served
9 as its first CEO for several months, and I moved into a CTO,
10 to the chief technology officer position, and that's the
11 position I stayed in through the duration of my tenure there.

12 BY MR. DE VRIES:

13 Q. Mr. Pershing, what connection, if any, do you have to the
14 patents that are involved in this case?

15 A. I'm a listed inventor on all the patents in this case.

16 Q. Now, before I ask you about some of the facts related
17 specifically to this case, I'd like to briefly ask you about
18 your background.

19 Mr. Pershing, where did you grow up?

20 A. I grew up in Tucson, Arizona.

21 Q. And as a kid --

22 A. Um-hum.

23 Q. -- did you have any interests in computers?

24 A. Yes. I think it started when my family got its Atari
25 2600 gaming system, which is one of the early gaming consoles,

10:05 1 plugged into your TV. You couldn't program with that, but a
10:05 2 couple years later, we got an Atari 400, which was a similar
10:05 3 cartridge-based gaming system, but it also had a keyboard and
10:05 4 an ability to, you know, learn program language -- programming
10:05 5 languages.

10:05 6 Q. And did you write any computer programs when you were a
10:05 7 kid, Mr. Pershing?

10:05 8 A. I did. So the Atari had the basic programming language,
10:05 9 and I had a couple of books and was self-taught, you know, how
10:05 10 to program in Basic. Did some -- some tutorials, you know,
10:05 11 wrote some code to draw things to the screen, some rudimentary
10:05 12 games.

10:05 13 Q. Mr. Pershing, did you go to college?

10:06 14 A. Yes.

10:06 15 Q. And where did you attend college?

10:06 16 A. The University of Arizona.

10:06 17 Q. Did you earn an undergraduate degree there?

10:06 18 A. Yes, I did.

10:06 19 Q. And what was your undergraduate degree from the
10:06 20 University of Arizona?

10:06 21 A. It was a -- it was a Bachelor's in Engineering Physics.

10:06 22 Q. And did you get any other degrees after that?

10:06 23 A. Yes, I did.

10:06 24 Q. Which ones?

10:06 25 A. I received a Master's of Science in Physics.

1 Q. And beyond your Bachelor's and Master's Degree, did you
2 do any other post-high-school education?

3 A. Yes. So, I was in a Physics Ph.D. program, and after I
4 received my Master's Degree, I exited that program, and a year
5 later, I reentered a Doctorate program in Biomedical
6 Engineering.

7 Q. Now, Mr. Pershing, did you take any classes at college
8 related to computers?

9 A. I took -- as part of the curriculum, I took an
10 introductory computer Science class. It was how to program in
11 Pascal, essentially. But beyond that, you know, I self-taught
12 myself the C language, and there is a lot of -- you know,
13 there is fair number of classes that either required
14 interaction with computers or for us to, you know, write a
15 small bit of code in order to do something related to the
16 class.

17 Q. Now, did you write any other software while you were in
18 college?

19 A. Yes. So, during the first couple of years in college, I
20 worked at a company called Donnelly. They made -- they made
21 special chemical films to put on glass, and I wrote code to
22 try to simulate what happens when you apply electricity to it.
23 Those are films that you see in your cars nowadays, where like
24 anti-glare or if you get the headlights in your rearview
25 mirror, the mirror goes dark. Those are those kinds of films

1 that they were working on.

2 Approximately my junior year, I went to work for a
3 company called Wyko. They made -- they made some instruments
4 to do very highly accurate three-dimensional surface
5 measurements of small parts and surfaces, and I also had some
6 projects involving neural networks at the university, just as
7 a side thing. And another project that I was working on
8 called Instant Portfolio, which was a small piece of
9 commercial software that I wrote.

10 Q. So let me ask you just a little bit more about a couple
11 of the things you just testified about.

12 Instant Portfolio, how did it come to be that you wrote
13 the software for that?

14 A. So, at the time, my wife's grandmother was a stockbroker
15 with a brokerage firm in Phoenix, and for some of her
16 clients -- well, the statements that her clients would get
17 every month were -- could be long, and they were kind of hard
18 to read, make sense of, you know, what's going on with their
19 investments. And so for certain clients, she would manually
20 take the printouts from those reports -- those statements and
21 put them in a spreadsheet in kind of a friendly, consumable
22 way that her clients could understand.

23 And so she had approached me and wanted to know if --
24 if that was something that could be put into a -- you know,
25 had some custom software wrote so that could be something that

10:09 1 she could do for all of her clients, and that we could, you
10:09 2 know, potentially sell it to other brokers and brokerage
10:09 3 firms.
10:09 4 Q. And did you end up creating the software that your wife's
10:09 5 grandmother asked you to help her with?
10:09 6 A. Yes.
10:09 7 Q. And did you sell any copies of that when you were in
10:09 8 college?
10:09 9 A. We did, yes.
10:09 10 Q. Okay. I'd like to ask you a little bit more about a
10:09 11 company that you referred to as Wyko.
10:09 12 A. Um-hum.
10:09 13 Q. Mr. Pershing, have you created a slide, a demonstrative
10:09 14 slide, to assist you in explaining what your work there
10:10 15 entailed?
10:10 16 A. Yes, I have.
10:10 17 MR. DE VRIES: Okay. Mr. Thomas, if we could please
10:10 18 display PDX-2.1.
10:10 19 (Document was published.)
10:10 20 BY MR. DE VRIES:
10:10 21 Q. Please explain to the jury what you're showing here about
10:10 22 the work that you were doing at Wyko.
10:10 23 A. So these are a couple of diagrams taken off some
10:10 24 marketing materials of mid to late '90s, like '96, I think
10:10 25 is -- yeah, 1996 is this one.

1 So what you see in the upper-left-hand corner there is
2 a graphic that shows kind of the head of the microscope. In
3 the one image, it's looking down on a disk that would be in a
4 hard drive, and the other one shows it looking down on a tray,
5 which you can't see the detail there, but there is these
6 little bits of silicon on there which are the read/write heads
7 that read and write the data on the disk.

8 And so these instruments were used at the factories,
9 the hard drive manufacturers, as a quality control mechanism.

10 And what you see on the lower right is a screen from
11 the software for this -- this particular company, as was
12 common would ask us to write custom modules for them for
13 various things they wanted to understand about the parts, and
14 so what you see on that screen there is a part that was one of
15 those hard drive heads, and the top middle diagram is a
16 three-dimensional plot of data that was taken off the
17 microscope; the red showing the parts that were nearest the
18 lens, the blue showing the parts that were pieces that were
19 furthest from the lens. And that microscope was able to
20 produce -- could determine variations in height, almost down
21 to atomic level, down to a few nanometers in resolution. And
22 so you could get very specific and accurate data on the shape
23 of the surface of that head, on its roughness, other
24 parameters that they're interested in.

25 And so, you know, I would write modules, like this

1 one here, to do calculations that were relevant to what the
2 customer wanted.

3 THE COURT: What do you mean when you say you would
4 write modules? What does that mean?

5 THE WITNESS: So, there is the hardware which
6 comprised the microscope --

7 THE COURT: Tell this to the jury, not to me.

8 THE WITNESS: So, there is the hardware that -- there
9 is the hardware of the microscope, there was firmware that
10 drove the hardware, and then there is a base software package
11 that interacted with how to user interface and interact with
12 the hardware.

13 And, on top of that, they could ask the company --
14 they could pay the company to build a special piece of
15 software for them to do calculations that were specific for
16 what they needed. And so that's what I mean by -- in this
17 context, by what a module is.

18 BY MR. DE VRIES:

19 Q. Thank you, Mr. Pershing.

20 Now, how long did you work for Wyko?

21 A. Approximately five years.

22 Q. Okay. What did you do next after you worked for Wyko?

23 A. So, I worked at Wyko through the latter part of my
24 Bachelor's Degree and throughout my Master's in Science, and a
25 little bit after that. And then I left Wyko to enter the

1 Ph.D. program in Biomedical Engineering.

2 Q. And I'll ask you more about that.

3 MR. DE VRIES: Mr. Thomas, you can please take down
4 the display. Thank you.

5 BY MR. DE VRIES:

6 Q. Now, how long did you work in your Ph.D. program for
7 biomedical engineering?

8 A. Somewhere between one and two years.

9 Q. Okay. Did you take a position at a company after working
10 in that program?

11 A. Yes. I left that program and, you know, I had a young
12 son at the time and another one on the way and, you know, I
13 was just kind of weighing the balance of the cost and benefit
14 of staying in that program another few years and just decided
15 that it wasn't -- you know, financially, it wasn't going to be
16 in my best interests to stay there, and so I started
17 interviewing around -- you know, get a real job, right? So I
18 interviewed in Phoenix and Texas and California.

19 Q. And did you -- what job did you take?

20 A. I ended up taking a job with a company called Wireless
21 Knowledge. They were a San Diego-based company. They were a
22 company that was formed as a joint venture between Microsoft
23 and Qualcomm.

24 Q. And what was your position at Wireless Knowledge?

25 A. Software engineer.

1 Q. Where did you go to work next?

2 THE COURT: Excuse me. Software what?

3 MR. DE VRIES: I'm sorry.

4 THE WITNESS: A software engineer, your Honor.

5 BY MR. DE VRIES:

6 Q. Where did you go to work next after Wireless Knowledge?

7 A. After Wireless Knowledge, I went to work at a biotech
8 startup called Pro Links.

9 Q. And what was your position with Pro Links?

10 A. I was a -- I was an engineer there. They -- they started
11 out as a company that had a special piece of chemistry they
12 developed for the biological sciences that would allow -- that
13 would allow the study of how strongly different biological
14 molecules interacted with each other. And they had
15 commissioned -- before I got there, they had commissioned the
16 construction of an instrument that would utilize the
17 chemistry, as well as a sensor from another company, and a
18 piece of software from another company in Florida, and -- but
19 they didn't have any in-house engineering resources, and so
20 they brought me on board an in-house engineering resource
21 to -- as these pieces were approaching their prototype, to try
22 to kind of shepherd it towards a, you know, a commercial
23 product.

24 Q. Where did you work next after you worked as an engineer
25 at Pro Links?

1 A. So, Pro Links, as what happens with a lot of startups,
2 they ran out of money, went out of business, and I moved on to
3 a position as a contractor for Microsoft.

4 Q. And what did your job at Microsoft entail at a high
5 level?

6 A. I was part of their developer support group. So, you are
7 familiar with probably Microsoft Windows, which is their
8 operating system. They also make tools that allow other
9 people to -- is that me? -- I'm sorry -- that allow other
10 people to write their own custom software applications. And
11 so that group existed because, you know, software groups,
12 using their software, if they were building a program that --
13 and they're running into problems that they thought was caused
14 by a bug in the Microsoft operating system or a bug in their
15 compiler -- a compiler is a tool that translates the code you
16 type in into code that can run on a computer. And so if they
17 felt there was a bug in that, they would contact the group
18 that I was working with, and we would investigate, try to
19 determine where the problem was. If it was on Microsoft's
20 side, we would escalate that to their respective development
21 teams. If it was on the customer's side, we would help the
22 customer go through their code and determine what the problem
23 was.

24 Q. Where did you work after Microsoft, Mr. Pershing?

25 A. So, I -- I was about a year as a contractor, I think a

1 couple years as a full-time employee, and then I moved on to
2 Philips Medical Systems in their Ultrasound Division.

3 Q. And at a high level, what did -- what position did you
4 hold at the Philips Medical Systems Ultrasound Division?

5 A. I believe it was a senior software engineer.

6 Q. Okay. And how long approximately did you work for
7 Philips?

8 A. Approximately two years.

9 Q. And why did you leave Philips?

10 A. Excuse me.

11 I left Philips to pursue what became EagleView.

12 Q. Okay. I would like to now turn to asking you about the
13 facts that are involved in this case, and, in particular,
14 EagleView.

15 What is EagleView, Mr. Pershing?

16 A. EagleView is the name of a company that I founded that
17 is, you know, initially our business was completely focused on
18 the development of a system where a customer could give us an
19 address of a building of interest, say a house, and we would
20 remotely, using imagery, measure the roof of that house and
21 return back to the customer a report with the details
22 concerning the measurements of the house that they would find
23 useful.

24 Q. And, Mr. Pershing, did you found EagleView to bring to
25 market some technology that you had invented?

10:19 1 A. Yes.

10:19 2 Q. How was it -- please tell the jury how it came to be that
10:19 3 you started working on that technology.

10:19 4 A. Sure.

10:19 5 So, at the time I was working at Philips, and my
10:19 6 brother-in-law, David Carlson, was at the time working as a
10:19 7 salesperson for a roofing company in California. And as a
10:19 8 salesperson for a roofing company, part of his job duty is to
10:19 9 go out to people's homes, make an appointment with them, if
10:19 10 they -- if they want an estimate for a roof repair or
10:19 11 replacement, and oftentimes that involves the need to make a
10:19 12 measurement of the roof, which oftentimes involves having to
10:19 13 get up onto the roof. And that particular part of the job is
10:19 14 a dangerous part of the job for roofers because old roofs or
10:20 15 damaged roofs are typically -- can be unsafe to work on, they
10:20 16 can be slimy, they can be -- you know, you can have loose
10:20 17 shingles, there can be winds, et cetera. And people that have
10:20 18 worked in that industry for awhile, you know, they have
10:20 19 stories about close calls about either falling off or almost
10:20 20 falling off roofs for some of those reasons.

10:20 21 And I think David had just recently had another one of
10:20 22 those close calls with high winds and whatnot, and so he
10:20 23 had -- he called me up just inquiring, you know, just saying
10:20 24 that's a -- not a part of the job that he likes, and he wanted
10:20 25 to know if I was aware of any software out there in the world

1 that would allow him the ability to measure the roof without
2 actually having to get up onto the roof. And he had inquired,
3 you know, is there -- you know, could I stand on the ground
4 and walk around the house and take some pictures or somehow
5 measure the roof that way? And, you know, I had thought about
6 it on the call and I told him I wasn't aware of any off the
7 top of my head, but I would do some research and I'd get back
8 to him.

9 Q. Mr. Pershing, when, approximately, did that phone call
10 happen?

11 A. That was the latter part of 2006, you know, kind of early
12 fall.

13 Q. Okay. Now, what did you do next after the conversation
14 with your brother-in-law, David Carlson, that you just
15 described?

16 A. So I did what I said I was going to do. I did some
17 research online, just looking around to see if there was a
18 piece of software that either fit the bill of what he was
19 asking for or that I thought could be kind of repurposed for
20 that -- for that purpose, or if there was a service out there
21 that had that capability, and I didn't find anything.

22 Q. So did you call him back?

23 A. Yes.

24 Q. And what did you say in that phone call?

25 A. Well, I told him that I didn't find anything. I'd just

1 keep my eyes -- I told him I'd keep an eye out for it; if I
2 saw something that looks relevant, I'd give him a call back.

3 Q. Was that the end of the story?

4 A. For a little bit.

5 I mean, after that call, you know, I -- you know,
6 couple weeks went by, I really didn't think much more of it.
7 And I was just messing around on the computer looking at
8 Google Earth at the time, looking at different monuments,
9 panning over I think like areas around my neighborhood, and
10 just had the light bulb moment that, you know, maybe this --
11 maybe this could be an avenue. Maybe aerial imagery could be
12 a means to provide such a solution.

13 Q. I would like to ask you a little more about the aerial
14 imagery that you talked about.

15 A. Um-hum.

16 Q. But, first, did you call David back to tell him about the
17 light bulb moment you'd had?

18 A. Yeah, I gave it -- I mean, it was -- I think it was a few
19 days where I just kind of like stewed on it, thought about it,
20 thought about some of the -- some of the issues, kind of
21 feasibility, did a little bit of poking around, just trying to
22 determine -- you know, just very ad hoc, like, you know, is
23 this -- is this imagery pretty much everywhere? Is it -- you
24 know, could it enable potentially a service like that?

25 I did a quick assessment of what I thought was the --

1 the resolution of that imagery, which means, you know, for
2 every pixel you see on the screen, approximately how big of a
3 footprint is that on the ground? Which kind of drives, like,
4 how small of an object could you see on the ground or how
5 accurately could you see the edge of something?

6 So after doing a little bit of poking around there, it
7 just seemed more and more that this might be a viable
8 solution, and so I called David back and said, hey, you know,
9 I haven't found anything.

10 MR. BROMBERG: Objection, your Honor, hearsay.

11 THE COURT: No, I will allow it.

12 Go ahead.

13 THE WITNESS: I called him back, and I explained to
14 him what I was thinking, that, you know, this might be a --
15 something could enable, you know, a service that would allow a
16 remote measurement of a roof, and sending whoever wanted that
17 information the information back, so that it could be done
18 without having to actually visit the site.

19 BY MR. DE VRIES:

20 Q. Mr. Pershing, when, approximately, was that conversation
21 that you just described with your brother-in-law, David
22 Carlson?

23 A. That was November of 2006.

24 Q. Okay. And after that phone call, what did you do next?

25 A. So, he was -- after bouncing that idea off him, he was

1 very excited about the prospect. I think he saw -- you know,
2 I think he saw what I saw in that that was a potential
3 solution.

4 And so that -- after that kicked off, there was some
5 more, I guess, for lack of a better word, tinkering on my end,
6 measuring a couple of different simple things, like I measured
7 lines on a sport court, on a basketball court near where I
8 lived, just to assess, you know, approximately, you know,
9 whether or not the scaling on the imagery was close to
10 reality, you know, and just further experimentation like that.

11 Q. Now, I'D like to ask you to explain to the jury some more
12 about the technical details of the work you were doing --

13 A. Sure.

14 Q. -- but first, let me just make sure I have the time frame
15 in mind.

16 From the time that you spoke with your brother-in-law
17 in 2006 to the time you founded EagleView, approximately how
18 long was it that you were working on the technology that later
19 became EagleView?

20 A. It was -- it was more than a year. And there was -- I
21 mean, there was a couple of early hurdles that I wanted to
22 clear because it was readily apparent that in order to -- in
23 order to be able to accurately measure a roof, one of the
24 challenges was can you -- dealing with roofs that have pitches
25 or slopes. I mean, you could think of the Snoopy doghouse, I

1 mean, that's an example of a pitched roof. And so one of the
2 challenges was could that pitch be accurately determined using
3 aerial photographs, and, specifically, aerial photographs that
4 were easily accessible over the internet so that it would kind
5 of unlock the potential of these libraries that already
6 existed.

7 Q. Have you created a demonstrative to assist you in
8 explaining to the jury some of the work you were doing around
9 aerial photographs?

10 A. Yes.

11 MR. DE VRIES: Mr. Thomas, may we please pull up
12 PDX-2.4?

13 (Document was published.)

14 BY MR. DE VRIES:

15 Q. Please explain to the jury what you're showing here and
16 how this relates to the work you were doing on your invention.

17 A. So, predominantly, there's two types of aerial
18 photographs that are out there in libraries.

19 One is -- one is to provide a top-down view, which is
20 what you see on the upper right. And those are photographs
21 that are taken, if you can imagine a plane flying over with a
22 camera in its belly, the camera is pointing vertically down at
23 the ground, and so you're getting -- you're getting a
24 viewpoint that's looking down vertically from the sky. And
25 you're probably familiar with those types of images through,

1 you know, Google Maps or navigation apps where you can kind of
2 pan around, you know, sitting in your neighborhood, and see
3 things from a -- from an overhead, downward-looking viewpoint.

4 The other type shown on the lower right is an oblique
5 view, which, if you can imagine the camera in that aircraft
6 belly being pointed at, say, an approximately 45-degree angle
7 to the ground.

8 And so, with the top-down view, one of the challenges
9 is if you're looking down at that roof, you don't have a good
10 way to determine how steep that roof is. And the problem
11 for -- that I had to overcome was if you can't tell how steep
12 that roof is, you can't tell accurately what the area of that
13 roof is, because for the same size footprint of a building, if
14 you have a very steep roof, it takes a lot more roofing
15 materials to cover that roof than if it were a flat roof
16 because there is more area to cover.

17 And so with the oblique view, you get a partial side
18 look at the building, so you can see now more detail about the
19 pitch of that roof, and you can see some of the face of the
20 building.

21 And so those are the -- my working theory at the time
22 was that if I could combine information from a top-down view
23 and one or more oblique views, that I could determine the
24 pitches of the various roof sections and, hence, I could
25 determine an accurate area.

10:29 1 Q. Now, Mr. Pershing, how standard are roofs in the United
10:29 2 States? Or, in other words, how similar or dissimilar are the
10:29 3 roofs on houses in the United States?

10:29 4 A. Well, I mean, at the time I really had no appreciation
10:29 5 for just the variety of roofs that are out there. I mean,
10:29 6 they range from relatively simple roof profiles like my old
10:29 7 house, to ones a little bit more complex like you see here, to
10:29 8 things that are outrageously complicated that I had no
10:29 9 appreciation for until I started down this path.

10:29 10 Q. Mr. Pershing, have you created some demonstrative slides
10:30 11 to help assist you explaining that to the jury?

10:30 12 A. Yes.

10:30 13 MR. DE VRIES: Mr. Thomas, if we could please go to
10:30 14 PDX-2.2.

10:30 15 BY MR. DE VRIES:

10:30 16 Q. Mr. Pershing, please explain to the jury what we're
10:30 17 looking at here.

10:30 18 A. So what we're looking at here on the left-hand side is
10:30 19 the roof of my old house, this was the house I was living in
10:30 20 at the time I started this work. And it's a relatively simple
10:30 21 roof profile, it's essentially like two -- they're called
10:30 22 gables, but think of a Snoopy doghouse, that's a gable. You
10:30 23 have two roof planes, two roof sections that come up to a
10:30 24 central ridge there. So my house has two of those attached to
10:30 25 each other. And that was the first house that I used as a

1 model to try to do these calculations on because I could
2 easily, obviously, go out and measure the slope of that roof
3 and the dimensions of the house, etcetera, so it was a good
4 test case.

5 The house to the right is an example of a, of a
6 slightly more complicated roof design. You've got a couple of
7 different elements --

8 THE WITNESS: Is it okay if I use this laser pointer?

9 THE COURT: Yes.

10 MR. BROMBERG: Your Honor, excuse me for
11 interrupting, but I can't see the witness because of the
12 monitor in front of his face.

13 THE COURT: Do you want to move over, Mr. Bromberg?
14 I'll give you permission to walk over. It's just that I don't
15 think we can move the monitor right now in the interest of
16 time.

17 MR. BROMBERG: And we also can't see the jury because
18 Mr. De Vries is right in front of it. If he could move a
19 little bit to the left.

20 THE COURT: Okay. Mr. De Vries, would you mind
21 skooching over a little with the podium? Thank you. And it
22 might be just more expeditious to have counsel move so they
23 can see what they need to.

24 If you can point the laser up there, just be careful
25 that you don't point it at anyone. Okay?

10:31 1 THE WITNESS: Okay.

10:31 2 MR. DE VRIES: Your Honor, is this okay?

10:31 3 THE COURT: Yes. Well, I presume so. Mr. Bromberg,
10:31 4 he's now standing so you're not in the way anyway, so...

10:32 5 Okay, go ahead.

10:32 6 THE WITNESS: So as I was mentioning, so a gable
10:32 7 consists of two roof sections, so Section 1, Section 2, and
10:32 8 there's a ridge line where it comes together.

10:32 9 This house is a bit more complicated in that you can
10:32 10 see above the garage there's a gable, there's a gable back
10:32 11 here. And there's a new geometry in this house called a hip,
10:32 12 which is an intersection of three roof sections. So one, two,
10:32 13 three. And that kind of forms the triangular section there.
10:32 14 There's another hip over here. So in contrast to my house
10:32 15 which has four roof sections, this house has two, four, six,
10:32 16 seven, nine, ten, looks like 11 roof sections, and a more
10:32 17 complicated arrangement, and like I said, some new geometry is
10:32 18 there.

10:32 19 MR. DE VRIES: And Mr. Thomas, if we can please
10:32 20 display PDX-2.3.

10:32 21 BY MR. DE VRIES:

10:32 22 Q. What are we -- what are you showing here, Mr. Pershing?

10:33 23 A. So here's an example of a very complicated roof that
10:33 24 would be difficult to measure, especially by hand. This shows
10:33 25 a number of different features. Obviously the complexity is

1 much greater just by the number of roof panels and
2 arrangements. There is -- you can see kind of this scallop or
3 clamshell looking structure here, you see the tip of what
4 looks like a turret, you see these semicircular dormers.

5 And as is common with roofs, they get more complicated.
6 This is obviously a rather complicated example. But not all
7 of these roofs planes even have the same slope. So not only
8 is it a challenge to try to figure out in a simple case, for
9 instance, what's the slope of this dormer here, but to then
10 determine what's the slope, the correct slope of all of these
11 roof planes throughout the entire structure. Because the
12 total area of the structure is going to depended on accurately
13 determining all of those values.

14 Q. Thank you, Mr. Pershing.

15 Now, in figuring out a solution to these problems, did
16 you ever employ a birdhouse?

17 A. Yes.

18 Q. Okay. And please tell the jury how you used a birdhouse
19 in coming up with your solutions.

20 A. I used it as a visual tool, as a mental aid, mental model
21 as I was thinking through the problem of how I was going to --
22 how I was going to use and correlate information from
23 different photographs in order to produce a coherent, accurate
24 model of a roof.

25 Q. And have you created a demonstrative slide to help show

1 the jury what you're talking about?

2 A. Yes I have.

3 MR. DE VRIES: Mr. Thomas, please display PDX-2.5.

4 BY MR. DE VRIES:

5 Q. Please explain to the jury what they're looking at here.

6 First of all, why don't you explain what this birdhouse is and
7 where you got it?

8 A. This is just a decorative birdhouse that my wife had up
9 on a shelf. I pulled it down because it had just enough
10 complexity to be useful for me to think through the problem.
11 So, you can imagine these -- these viewpoints here are similar
12 to what you'd see on an oblique aerial photograph, you know,
13 if you put the birdhouse on the ground and walked around it.

14 So, one of the things I realized early on partially
15 from this model is that, you know, not only do you have to
16 determine the slopes of the roof section, but in any one given
17 photograph you may not see everything you need to see to
18 understand what that roof looks like. For instance, on the
19 left -- actually each one of these photographs there is
20 sections of the roof that are obscured by the building itself.
21 In real world scenarios there could be trees that obscure part
22 of the building. But on the left here you can see there's
23 that lower roof panel that's obscured. In the center photo
24 you really can't see the back side of the house. And likewise
25 on the right photo, the other side of the lower roof section

1 is obscured.

2 And so that helped me think through the process not
3 only of the math as to how I was going to collect the, you
4 know, tie the information together I needed, but the fact that
5 it would be helpful to tie that information together using
6 multiple viewpoints.

7 Q. Now, Mr. Pershing, you mentioned the word "correlate."
8 Would you please explain to the jury what you're talking about
9 when you say "correlate?"

10 A. So, I mean photographs are -- even though -- even though
11 your brain tells you that you can infer something about the
12 three-dimensional nature of what you're looking at on the
13 screen there, the reality of any given photograph is that it's
14 a flat plane of dots. There's nothing in any individual
15 photograph that constitutes real understanding of the
16 three-dimensionality of what you're looking at. And so, when
17 I say corollate I mean how are you going to tie together or
18 conflate information between different photographs in order to
19 gain a better overall understanding of what you're looking at.

20 Q. And, Mr. Pershing, have you prepared some demonstrative
21 slides to assist you in explaining to the jury how you used
22 correlation as part of your invention?

23 A. Yes.

24 MR. DE VRIES: Mr. Thomas, let's please display
25 PDX-2.6.

1 BY MR. DE VRIES:

2 Q. Please explain to the jury, Mr. Pershing, what they're
3 looking at.

4 A. So what you're looking at here is on the left-hand side
5 is a top down view, and on the right-hand side an oblique
6 view. And so in order to be able to leverage both of those
7 photographs to say something about that house, you need to
8 identify points in those photographs, you need to -- which
9 represent the same physical point on what you're looking at,
10 but they're going to appear in different places in the two
11 different photographs.

12 And so you can see, for instance, the number one is on
13 the corner of the house nearest that dormer, and that's been
14 identified as point number one in the oblique view. And
15 likewise, the adjacent corner number two has been identified
16 in both photographs. And likewise for point number three.
17 And so in determining where those points lie in two different
18 photographs or more, you can then -- that sets the stage for
19 being able to understand how to apply some math to understand
20 the geometry of what you're looking at.

21 Q. And, Mr. Pershing, have you also prepared a demonstrative
22 slide to explain to the jury what you do next as part of your
23 invention?

24 A. Yes. Yes, I have.

25 MR. DE VRIES: Mr. Thomas, please display PDX-2.7.

1 BY MR. DE VRIES:

2 Q. Please explain to the jury what they're looking at here.

3 A. So what you're looking at here is a diagram further
4 explaining this correlation process and what comes out of it.
5 So, on the very left-hand side you see the same photographs
6 from the previous slide with the same labelings. And once
7 you've determined those labelings, what you really determine
8 if you look next to those, you've determined a pattern of
9 points. So if you take away the color, if you take away the
10 colorings on that so that the photograph is just now a grid of
11 locations, essentially, those points form a pattern on the top
12 plan view and those points form a different pattern in the
13 oblique view.

14 And so, by correlating those two, it's -- some math is
15 applied to figure out how -- how you could take the pattern
16 that you see in say that top plan view and manipulate it
17 through stretching it, rotating it, sliding it around so that
18 those points can land on the pattern that you see in the
19 oblique view. If you can understand how to do that, you
20 understand what's called a transformation, so you know to
21 transform the point pattern in the one view to the point
22 pattern in the other view. And if you understand the
23 transformation, that tells you, that gives you an
24 indication -- well, that tells you you can derive a coordinate
25 system that tells you where those points actually are in a

1 three-dimensional space. And knowing that, you can then
2 determine what -- for those points and for other points you
3 identify in the image what their relative height is in the
4 real world relative to each other. And that allows you to
5 begin to understand the heights, you can understand the pitch,
6 you can understand -- if you start at that eave and go up to
7 the top of the ridge you know the height, and hence you can
8 calculate the angle there.

9 Q. Mr. Pershing, you just mentioned that that process that
10 you described can help you determine, among other things,
11 pitch?

12 A. Yes.

13 Q. I'd like to ask you to explain to the jury exactly what
14 you mean by "pitch." Have you prepared a demonstrative to
15 assist you in explaining that to the jury?

16 A. Yes, I have.

17 MR. DE VRIES: Mr. Thomas, please display PDX-2.8.
18 BY MR. DE VRIES:

19 Q. Mr. Pershing, would you please explain to the jury what
20 you're showing here?

21 A. So, pitch, you can think of pitch as a slope. The term
22 "pitch" is a term that's use in the roofing industry. It
23 refers to -- it refers to the steepness of the slope of the
24 roof. So, for instance, on the right one it says pitch equals
25 five. What that means is that for every 12 inches you move

1 along that dotted green line, you would move up five inches on
2 that dotted red line. So a larger number means it's a steeper
3 roof. So a pitch of zero would imply a flat roof, a pitch of
4 12 like you see on the left-hand side means that for every
5 12 inches you move over, you've moved 12 inches up. So
6 that's -- it's a 45-degree roof, which is a much steeper roof
7 than that pitch five.

8 And the other thing you can note, there is, you know,
9 for the same -- if those two looked -- you know, if you're
10 looking straight down on those two, you want to be able to
11 tell what that pitch was, but with this viewpoint you have an
12 indication at least that one is considerably steeper than the
13 other.

14 MR. DE VRIES: Mr. Thomas, if you can please take
15 that down.

16 BY MR. DE VRIES:

17 Q. I'd like to ask you about some documents, Mr. Pershing.

18 A. Okay.

19 Q. Did you keep notes of your work as you were working on
20 your invention at this time?

21 A. Yes, I did.

22 Q. And how would you describe those documents that you're
23 thinking of?

24 A. I would describe it as a notebook.

25 Q. Okay.

10:43 1 A. Or notebooks.

10:43 2 Q. Had you kept notebooks at previous jobs?

10:43 3 A. Yes, I had.

10:43 4 Q. And what are you thinking of?

10:43 5 A. So in coming up through an education in the sciences, you
10:44 6 know, you take a lot of laboratory classes, they teach you
10:44 7 about keeping a notebook. And several of the jobs I've worked
10:44 8 in, notably at least Wyko and ProLinux, those companies
10:44 9 encouraged their engineering employees and scientists to keep
10:44 10 notebooks, to keep a record of what you're doing so in case
10:44 11 there's any material that might be interesting or patentable,
10:44 12 so it provides a means of recording what you're doing and on
10:44 13 what date. And so, so yes, on some of my jobs there was
10:44 14 company issued notebooks.

10:44 15 Q. Now, Mr. Pershing, you should have a binder in front of
10:44 16 you. Make sure that you do. Do you have one?

10:44 17 A. Yes, I do.

10:44 18 Q. Please turn to PTX-457, that's Plaintiff's Trial
10:44 19 Exhibit 457. And please go ahead and look at the copy that
10:45 20 you have in your binder. Mr. Thomas is also going to be able
10:45 21 to help us take a look at it up on the screen.

10:45 22 So, looking at the first page of PTX-457 there is -- so
10:45 23 PTX-457.0001 there's a cover that says Lined Journal.

10:45 24 A. Yes.

10:45 25 Q. And you'll see as you turn through the pages there are

1 some pages with some writings on it. Is that a document

2 you --

3 A. I don't think it's up on the screen yet, but yes.

4 Q. Thank you. So let's go ahead to the cover page, to 01.

5 MR. DE VRIES: And, Mr. Thomas, if you could display
6 Page 1 of the exhibit, please. Thank you.

7 BY MR. DE VRIES:

8 Q. So, we're looking at the cover page, it says Lined
9 Journal here. What is this document?

10 A. That is photocopy of the journal, the notebook I kept.
11 This is the cover of it, the outside cover.

12 Q. And who obtained this journal?

13 A. I purchased it.

14 Q. Okay. And in general, what did you use it for?

15 A. I used it to capture my notes and thoughts that were
16 developing around this idea that became EagleView.

17 Q. Okay. If we turn to Page 2, the inside cover, there's
18 some writing there. Name, it says Chris Pershing and then
19 there is an address. Who wrote that writing where it says
20 Chris Pershing and the address?

21 A. That's my writing.

22 Q. Okay. Then if we turn to the next page, which is Page 3,
23 at the top, Subject, it says roofing calculations and then it
24 says 11/14/06, and then there's some writing below that. Who
25 wrote what I just described?

10:47 1 A. That's my writing.

10:47 2 Q. Okay. And what do you mean when you wrote 11/14/06?

10:47 3 A. So that was the date that I wrote that particular entry.

10:47 4 Q. Okay. And did you write this entry at the time that

10:47 5 you -- or on the date, I'm sorry, that you indicated here at
10:47 6 the top?

10:47 7 A. Yes, I did.

10:47 8 Q. Okay. Then it says here summary of events from the last
10:47 9 two weeks, and it says: 11/6/06, called David Carlson, wife's
10:47 10 brother to bounce some ideas I had developed over the previous
10:47 11 week regarding how to perform and automate calculation of roof
10:47 12 square footage. David had called me about a month ago wanting
10:47 13 to know if there was a software solution for determining the
10:47 14 approximate square footage (ASF) for a roof without having to
10:48 15 physically climb up on the roof to measure. I was not aware
10:48 16 of any such product and did not know if it would be feasible
10:48 17 to -- I'm sorry, what's that next word there?

10:48 18 A. Yeah, feasible.

10:48 19 Q. Feasible to a viable solution from a business
10:48 20 perspective.

10:48 21 So did you write those words?

10:48 22 A. I did.

10:48 23 Q. Okay. And what were you referring to there,
10:48 24 Mr. Pershing?

10:48 25 A. I was referencing back to what I was explaining earlier

10:48 1 about how I had -- at the point that I had considered aerial
10:48 2 imagery may be a solution, I had thought about that for a
10:48 3 number of days and then called David back, communicating the
10:48 4 ideas that I had developed.

10:48 5 Q. Okay. If we look at the next page, and obviously I'm not
10:48 6 going to be able to ask you about every page in this notebook,
10:48 7 but Page 4, it will say Page 2 at the top but I'm using the
10:48 8 trial exhibit number page. There are a number of things
10:49 9 written there. Whose handwriting is that?

10:49 10 A. That's all my handwriting.

10:49 11 Q. Okay. And at the top there's a date 11/14/06?

10:49 12 A. Correct.

10:49 13 Q. Why did you write that?

10:49 14 A. It's -- that was the date that I made the entry.

10:49 15 Q. Okay. And then in the middle of the page it says, on
10:49 16 access view overhead, off access oblique view, and then there
10:49 17 are some figures?

10:49 18 A. Yes.

10:49 19 Q. Please explain to the jury what you're describing there.

10:49 20 A. So those are sketches representing what I would see in an
10:49 21 overhead top down photograph, and likewise in an off axis
10:49 22 photograph, just kind of a hand sketch representation of a
10:49 23 simple roof profile.

10:49 24 Q. Now, again, I won't have time to ask you about every part
10:49 25 of this, but I'd like to go to Page 19 of the exhibit,

1 PTX-457.0019. There is a bunch of -- there is some text here
2 and some figures. Who -- who wrote this on this page?

3 A. That's my handwriting.

4 Q. Okay.

5 A. I did.

6 Q. And then why did you write 12/2/06 at the top?

7 A. That was the date I made that entry.

8 Q. Okay. At the top there is, it says subject calculations
9 and then it says how to calculate pitch?

10 A. Um-hum.

11 Q. You describe some four numbered steps, and then you have
12 a diagram that you've drawn out at the right?

13 A. Um-hum.

14 Q. Please explain to the jury what you're writing here.

15 A. This is -- I wrote out -- this is similar to what I
16 explained a few moments ago. The diagram on the right depicts
17 a representation of a three-dimensional object, a house. And
18 what you see above that would be a representation of an image
19 above the house with a coordinate system UMB. And what you
20 would see slightly after that is another rectangle. I'll use
21 my pointer here if it's not clear.

22 So that represents the overhead image, that represents
23 the oblique image and, you know, kind of the viewpoints here,
24 viewpoint 1 and viewpoint 2. And the idea here is that, as I
25 mentioned before, if a transformation can be determined that

10:51 1 relates -- that can correlate the information between those
10:51 2 two photographs, you could then use that information to figure
10:51 3 out a self consistent model about what was seen in those
10:51 4 photographs, that can then be used to determine accurate
10:51 5 dimensions.

10:51 6 Q. Thank you, Mr. Pershing.

10:51 7 So, did you maintain other notebooks at the time that
10:51 8 you were developing the technology that you've been talking
10:52 9 about?

10:52 10 A. Yes, later on, yes.

10:52 11 Q. Okay. So, let me turn your attention to another
10:52 12 document, PTX-456.

10:52 13 A. I'm there.

10:52 14 Q. Thank you. Please explain what PTX-456 is.

10:52 15 A. This is a photocopy of another notebook.

10:52 16 Q. Okay. And whose notebook is it?

10:52 17 A. It's my notebook.

10:52 18 Q. Okay. And if we look at, for example, Page 2, there's
10:52 19 some writing there?

10:52 20 A. Yes.

10:52 21 Q. Whose writing is that?

10:52 22 A. That's my writing and sketches.

10:52 23 Q. Okay. And then again I won't ask you about every page,
10:52 24 but Page 3 whose writing is that?

10:52 25 A. That's mine.

1 Q. Okay. I'd like to ask you about Page 25. And there's
2 some writing here and some diagrams. Who wrote that?

3 A. I did.

4 Q. There's a number two, pitch tool. Do you see that?

5 A. Um-hum. Yes.

6 Q. What are you referring to when you say pitch tool?

7 A. So, in this -- in this phase of the development I was in
8 the midst of -- after doing some prototyping, kind of the
9 longer phase of it was figuring out, okay, now I understand
10 the technique, I've got to produce a piece of production
11 software that I can train others to use. And so a lot of this
12 notebook contains kind of thoughts and features as I was
13 building out the software. And this particular feature, I was
14 calling it a pitch tool, and it depicts an object that could
15 be placed on the image that a user could interact with in
16 order to help them assess the pitch of various roof sections.

17 Q. When did you write what we're looking at on Page 25?

18 A. This would be -- I mean based on, based on what's in and
19 around here, the feature that I was working on at the time,
20 this would be somewhere in the latter half of 2007.

21 Q. Now, I'd like to ask you a little more quickly about some
22 of the other notebooks, just in the interest of time, but
23 please turn to PTX-458.

24 A. Okay.

25 Q. And if we look at the first page, what is this document?

10:54 1 A. It's another notebook.

10:54 2 Q. Okay. Is it your notebook?

10:54 3 A. Yes, it is.

10:54 4 Q. Does it relate to work on the technology that we're
10:54 5 discussing?

10:54 6 A. Yes, it does.

10:54 7 Q. Okay. And there are a variety of pages in here, if we
10:55 8 just use an example, PTX-458.0013, so Page 13.

10:55 9 A. Okay.

10:55 10 MR. DE VRIES: If we could look at Page 13, please,
10:55 11 Mr. Thomas.

10:55 12 BY MR. DE VRIES:

10:55 13 Q. Whose writing is this?

10:55 14 A. That's my handwriting.

10:55 15 Q. Okay. All right. Now, let's take a look at PTX-459.
10:55 16 Please tell the jury what PTX-459 is.

10:55 17 A. It's another notebook.

10:55 18 Q. Okay. Is it your notebook?

10:55 19 A. Yes, it is.

10:55 20 Q. And does it relate to the technology we've been
10:55 21 describing?

10:55 22 A. Yes, it does.

10:55 23 Q. If we look at, as an example, Page 1. Yes, so Page 2 of
10:56 24 the exhibit, the first page of the document, whose handwriting
10:56 25 is that?

10:56 1 A. That's my handwriting.

10:56 2 Q. Okay. Let's take a look at PTX-509. What is PTX-509?

10:56 3 A. Looks like the first page of a yellow notepad, a notebook
10:56 4 that I was keeping.

10:56 5 Q. Does it contain notes that are in your handwriting?

10:56 6 A. It does.

10:56 7 Q. Okay. And does it relate to the technology that we're
10:56 8 describing?

10:56 9 A. Yes, it does.

10:56 10 Q. Okay. Now, in this particular notebook is all of the
10:56 11 handwriting in it yours?

10:56 12 A. I'd have to flip through to see.

10:56 13 Q. Let me assist you, Mr. Pershing, and I'm sorry, I don't
10:56 14 mean to cut you off. For example, if we look at Page 31, it
10:57 15 says, "Hi Dad, Bob" and there's a smiley face. Is that your
10:57 16 handwriting?

10:57 17 A. No, that is not my handwriting.

10:57 18 Q. Okay. Whose is it?

10:57 19 A. That would be my youngest son.

10:57 20 Q. Okay. And then if we look at Exhibit PTX-510. This is
10:57 21 the last one. What is this document?

10:57 22 A. It is yet another notebook.

10:57 23 Q. Okay. And whose notebook is it?

10:57 24 A. Mine.

10:57 25 Q. And does it relate to the technology we've been

1 describing?

2 A. Yes, it does.

3 Q. And does it contain notes that you've written about the
4 work you were doing on that technology?

5 A. Yes, it does.

6 Q. Okay. We can put that away.

7 So, once you had figured out the aspects of the
8 invention you've been telling the jury about, did there come a
9 time that you wrote any computer software related to your
10 invention at that time?

11 A. Yes. Yes.

12 Q. And what are you referring to?

13 A. So, what I'm referring to is, you know, from the earliest
14 point in time, and thinking through the technique, like I
15 said, my -- my house was the first house that I attempted to
16 apply this technique to to determine a pitch, and so I listed
17 programming language to start writing some code to help
18 facilitate doing those calculations.

19 And likewise, as I tested a few other examples and a
20 few of the roofs and kind of getting confidence in the
21 technique, I started writing more software around building an
22 interface that would allow me to do that more efficiently.
23 And then as the months went on and that progressed into
24 writing a software system that I intended to put into
25 production for other people to use as part of -- essentially

10:59 1 as a job duty.

10:59 2 THE COURT: May I ask a clarifying question? And if
10:59 3 there is something I say that's not correct, please correct
10:59 4 me.

10:59 5 So your testimony is is that you were looking to see
10:59 6 whether or not you could combine the top down and the oblique
10:59 7 view to come up with what would be the pitch of the roof,
10:59 8 right?

10:59 9 THE WITNESS: That would be one result that would
10:59 10 come out of it, yes.

10:59 11 THE COURT: Yes. And so did you then look at it and
10:59 12 then did you go up on a ladder to see whether or not you
10:59 13 could -- like you did, you did the formula and then you went
10:59 14 up on a ladder and determine that you were correct? How did
10:59 15 you know you were correct?

10:59 16 THE WITNESS: So, I did, for my own house I just -- I
10:59 17 did kind of a roof calculation just to see if it was in the
11:00 18 ballpark, and it actually came out very, very close. And
11:00 19 so --

11:00 20 THE COURT: My question is how did you know that?
11:00 21 Because you knew the pitch to begin with?

11:00 22 THE WITNESS: Well, yeah, I was able to go out and
11:00 23 measure the pitch.

11:00 24 THE COURT: Okay.

11:00 25 THE WITNESS: I could put a gauge up on the side of

1 the roof, on the side of the roof and determine it. I could
2 use a -- I could use a tape measure to determine the lateral
3 values.

4 THE COURT: And that's my question that I'm trying to
5 clarify. So you did your calculation and you were able to
6 confirm the calculation, which gave you the pitch, because you
7 went out and measured the pitch with a tape measure or
8 whatever you used, a gauge; is that right?

9 THE WITNESS: Yes. And then David working in the
10 industry still, he would provide -- you know, he would have to
11 go out and measure roofs as part of this, so he would give me
12 an example of one that he had just recently physically
13 measured and then -- well, he would give me the address of a
14 roof that he had been to recently and measured, and then I
15 would make an attempt to measure the pitch, measure the area
16 and then we'd compare notes. And that was -- that was a means
17 of both refining the technique I was developing and also
18 getting some confirmation in the physical world as to how well
19 it was relating to what was being measured by him.

20 THE COURT: Thank you.

21 Next question.

22 BY MR. DE VRIES:

23 Q. Let me ask you a little bit more about some of the things
24 you did to verify that the technology you had come up with
25 worked.

11:01 1 MR. DE VRIES: Mr. Thomas, please display PDX-2.9.

11:01 2 BY MR. DE VRIES:

11:01 3 Q. I believe you referred to this earlier in your testimony,
11:01 4 but, Mr. Pershing, did you test your system on a basketball
11:01 5 court that was near your home.

11:01 6 A. Yes. So just as early sanity check one of the first
11:01 7 things I did --

11:01 8 THE COURT: Sanity check?

11:01 9 THE WITNESS: Okay.

11:01 10 THE COURT: I didn't hear you.

11:01 11 THE WITNESS: Yeah, sanity check.

11:01 12 THE COURT: Okay.

11:02 13 THE WITNESS: Just -- just to see if it was feasible,
11:02 14 I suppose. I used one of those overhead images that I got off
11:02 15 of -- it was Google or Bing at the time of a basketball court
11:02 16 that was in my neighborhood, just to see if I were to use the
11:02 17 scaling information provided with the overhead photograph if I
11:02 18 could determine -- or how closely I could determine the length
11:02 19 of those long white lines, you know, the basketball court
11:02 20 being of the same scale as a house, and so -- you know, I just
11:02 21 wanted to determine does the scale marker provided with that
11:02 22 image provide enough or close enough, accurate enough scale
11:02 23 to -- to reflect what's actually there. And so that was -- I
11:02 24 believe that was about the first thing I went out with a tape
11:02 25 measure and measured and tried to verify measuring off the

11:02 1 photograph.

11:02 2 BY MR. DE VRIES:

11:02 3 Q. And did you also do some testing -- and I didn't cut you
11:03 4 off, did I, Mr. Pershing?

11:03 5 A. No.

11:03 6 Q. Okay. Did you also do some testing that involve the
11:03 7 images of the pyramids at Giza?

11:03 8 A. I did. So after doing a few examples of some simple
11:03 9 houses, again just as my -- you know, my hypothesis at the
11:03 10 time was that it didn't really matter, you know, as long as I
11:03 11 had a scale overhead photograph, meaning an overhead
11:03 12 photograph where the size of the dots was known, that I could
11:03 13 use any combination of oblique photographs that didn't have to
11:03 14 be taken with the camera or the same time, or really have any
11:03 15 knowledge around -- to prove to myself that I didn't really
11:03 16 have to have any knowledge around camera systems or how the
11:03 17 photograph was taken. And so I thought the pyramids of Giza
11:04 18 would be an interesting example because it's a well-known
11:04 19 structure in terms of its size and height, etcetera.

11:04 20 Q. And, Mr. Pershing, not to cut you off, but did you
11:04 21 prepare a demonstrative to aid you in explaining this to the
11:04 22 jury?

11:04 23 A. Yes, I have.

11:04 24 MR. DeVRIES: Mr. Thomas, please display PDX-2.10.

11:04 25 THE WITNESS: Right. So I went out and I -- to -- it

1 was probably Google and got an overhead photograph of the
2 Great Pyramids and then I sought out and just did a search and
3 pulled some photographs of some oblique views of the pyramids,
4 I think one was, like, a black-and-white photo from the '70s,
5 another one was, you know, similar to what you see there, kind
6 of representative, but taken over -- from different people at
7 different periods of time, and my objective here was to use my
8 technique to measure the height of the pyramids.

9 There was really only one interesting elevation point
10 to measure and that was, you know, obviously from the base of
11 the pyramid to the top of the pyramid.

12 BY MR. DeVRIES:

13 Q. And how did your system work in that test?

14 A. I was -- I ran it through the calculations and I came up
15 with a number that was within six or eight feet of the
16 published value, which in pyramid terms, is, like, you know,
17 maybe a couple bricks, which I was very excited about because
18 that was pretty darn close as far as I was expecting.

19 I mean, those pyramids I think are -- I don't remember,
20 but it's almost -- they're almost 500 feet tall. I think
21 they're, like, 480-something feet tall. So to me, you know,
22 something a handful of feet was an exciting result.

23 Q. Now, you described a moment ago writing some production
24 software after you had done your initial work in testing.

25 A. Yes.

11:05 1 Q. Do you recall that?

11:05 2 A. Yes.

11:05 3 Q. And who was writing the software with you, if anyone, at
11:05 4 that time?

11:05 5 A. It was just me.

11:05 6 Q. Okay. And approximately how long did it take you to
11:06 7 finish writing that additional production software?

11:06 8 A. Well, I was working on it for, you know, probably a
11:06 9 little bit -- a year-ish by the time we opened our doors for
11:06 10 business.

11:06 11 Q. Now, you had a job at Phillips Medical Systems at that
11:06 12 time, is that right?

11:06 13 A. A little under a year, maybe 10, 11 months, yeah. But,
11:06 14 yes, yes, I did.

11:06 15 Q. Okay. And so when were you doing this work?

11:06 16 A. Nights and weekends, burning the candle at both ends.
11:06 17 Lot of late nights.

11:06 18 Q. And where were you doing the work that you just
11:06 19 described?

11:06 20 A. In a -- I had a little guest bedroom/office in the
11:06 21 basement of my house.

11:06 22 Q. And once you were satisfied that your invention was a
11:06 23 good solution to the problem you set out to solve, what did
11:06 24 you decide to do?

11:06 25 A. So after getting some really results that were very

1 encouraging about being able to calculate the pitch, you know,
2 the height of the pyramids, the areas of roofs, you know, my
3 attention turned to, you know, this might be an idea I'd want
4 to try to protect with a patent, and likewise, conversations
5 were underway with David around, you know, if we were going to
6 -- if we were going to make it -- turn this into a business,
7 you know, what does that look like, you know, what resources
8 would we need to pull in, what, you know, what, what the
9 service would actually kind of look like in greater detail,
10 that kind of thing.

11 Q. Okay. When you say, "David," are you referring to David
12 Carlson, your brother-in-law, the roofer?

13 A. Yes.

14 Q. Okay. So I'd like to first ask you about the company
15 that you founded, EagleView, and then ask you about the
16 patents.

17 So first of all, EagleView, when did EagleView
18 officially open its doors for business?

19 A. Right. So EagleView, the company, was incorporated
20 mid-year 2007, but we didn't open our doors for our first day
21 of business until the end of January, 2008.

22 Q. Okay. Did EagleView have an office when it opened for
23 business?

24 A. We had -- we had just a week or two before we opened our
25 doors, we had secured a couple of offices in this -- it's an

11:08 1 executive office space, it's, like, you know, you can rent
11:08 2 rooms per month for business use, and so we rented a few rooms
11:08 3 in this office building that was a couple miles from my house.

11:08 4 Q. And where, geographically, are you talking about?

11:08 5 A. That would be Kirkland, Washington. Yes, Kirkland.

11:08 6 Q. Okay. In Washington State?

11:08 7 A. Yes, that's correct.

11:08 8 Q. Okay. And where was EagleView headquartered before it
11:08 9 moved into those rental offices?

11:08 10 A. I was just working out of my house.

11:09 11 Q. Okay. Now, how many employees did EagleView have when it
11:09 12 opened?

11:09 13 A. So, you know, a week or two before we opened, we started
11:09 14 advertising and we hired on -- I think it was initially three
11:09 15 technicians were there on the first day. So it was David and
11:09 16 myself and our wives and three technicians.

11:09 17 Q. Okay. Have you prepared some demonstratives to assist
11:09 18 you in showing the jury what it was like at the early days at
11:09 19 EagleView?

11:09 20 A. Yeah, I've got a couple photographs from that time
11:09 21 period.

11:09 22 MR. DeVRIES: Mr. Thomas, let's please pull up
11:09 23 PDX-2.11.

11:09 24 BY MR. DeVRIES:

11:09 25 Q. Please explain to the jury what you're showing them here.

1 A. So the photograph on the left was -- that was me at my
2 desk on our first day in my little office, and then the
3 photograph in the middle was an adjacent office that was being
4 set up for -- I believe that office, we were going to do sales
5 out of that office, and those are my three boys. They were --
6 the oldest there had just turned 11 and the other two, I
7 believe were eight and five respectively.

8 And the -- that was sometime in the first couple days
9 of the company there, and then the photograph you see there on
10 the right was taken in a -- in our second location. This was
11 a gathering celebration of our first year anniversary, and so
12 there's a lot of -- a lot of growth in that first year.

13 What you can't see in that photograph, aside from this
14 room, there is a large room behind that conference room that
15 had our sales and customer service personnel, and there is
16 another room adjacent to that, which had our engineering team
17 and executive offices.

18 Q. Mr. Pershing, did you put your boys to work when you were
19 opening your doors?

20 A. Yeah. So they came in a couple times and helped put
21 together desks, you know, we got these little 30-dollar flat
22 pack desk kits from Office Depot and they helped put some
23 screws in and get things stood up.

24 Q. Now, when EagleView opened its doors for business in
25 January of 2008, what was your role?

1 A. At that time, I was still the CEO. However, shortly
2 thereafter, it was -- it became obvious to me that I needed to
3 focus my efforts on further developing the technology, and
4 that was -- that was -- it made sense at that point to
5 delegate that business CEO role over to David, and I moved
6 into the seat, chief technology officer role, with a focus on
7 continually improving and developing the technology and
8 systems that we had in place.

9 Q. Now, Mr. Pershing, I'd like to ask you about those
10 systems and technologies that you had in place at EagleView.

11 But first, was EagleView ready to sell products when it
12 opened its doors for business in early 2008?

13 A. Yes.

14 Q. And what products was EagleView going to sell?

15 A. So, our -- our business model was, contact us with an
16 address and we will return to you a report document that will
17 have all the relevant measurements and diagrams that you would
18 need as someone in the roofing industry.

19 Q. Okay.

20 A. So our product, our deliverable was these reports.

21 Q. And how would you refer to those reports?

22 A. We would refer to them as EagleView reports.

23 Q. Okay. Would you ever refer to them as Roof Reports?

24 A. Yes, yes.

25 Q. Okay. And just in general, what types of information did

1 those Roof Reports contain?

2 A. So those Roof Reports would contain information about --
3 it would contain -- particularly photographs that we used, it
4 would contain diagrams of models that we produced from those
5 photographs. It would contain measurements of areas of the
6 different parts of the roof, as well as the total area. It
7 would contain the linear measurements of how long sections,
8 straight-line sections were on the roof, the pitch, the slopes
9 of the roof, that kind of information.

10 And everything that would be needed in order to
11 determine what -- what type and what quantity of materials a
12 roofer would potentially need to order, in order to make a bid
13 on that roof. So they could use that -- they could use those
14 measurements along with what the customer wants and what the
15 roofer assesses in order to create, you know, bid on what that
16 roofer was going to charge to replace that roof.

17 Q. And did EagleView have a software system for creating
18 those Roof Reports?

19 A. Yes, yes.

20 Q. Okay.

21 A. That was the software system I had mentioned.

22 Q. Okay. And how, if at all, were your inventions used in
23 that system?

24 A. They were part and parcel. They were used in that
25 system.

1 Q. So I'd like to ask you first about the EagleView software
2 system, and then ask you to explain to the jury a little bit
3 more about what's in those Roof Reports.

4 Have you created a demonstrative to assist you in
5 explaining the EagleView software system to the jury?

6 A. Yes, I have.

7 MR. DeVRIES: Okay. Mr. Thomas, let's please display
8 PDX-2.12.

9 BY MR. DeVRIES:

10 Q. Please explain to the jury, with reference to your
11 demonstrative, how it is at a high level the EagleView
12 software system works.

13 A. Sure. So on the left-hand side, the graphic of the
14 person sitting at a desk, at the monitor, is indicative of
15 somebody, somebody -- a roofing contractor professional that
16 wants to place an order, so either through a website or
17 through their mobile device or even picking up a phone and
18 calling us.

19 Everything on the right-hand side contained in that
20 blue box represents this Render House/Twister work flow, the
21 system that was developed. It has the approximate big pieces
22 here. You know, the system receives the order from the
23 person, which is, like I said, typically an address and one
24 of -- the first thing you'd have to do is take that address
25 and translate that into where is that on here, and that's you

1 know obtaining a longitude, latitude, that represents that
2 address, and then -- and then determining if there's imagery
3 available at that address that's of sufficient quality, and
4 does exist for that address, and then -- which is that second
5 box there. So, yes, now we know we have imagery for that
6 location.

7 So the lower right now depicts the software that will
8 assist in the building of that roof model, which is consistent
9 with what would be seen in the photographs. And then moving
10 to the lower left, that depicts a generation of a Roof Report
11 based on the data that was generated from that roof model.

12 And then that last dotted line depicts the delivery of
13 that information back to the customer.

14 Q. So, Mr. Pershing, I'd like to ask you a little bit more
15 about the functionality in the modeling box, the lower
16 right-hand corner that you just described.

17 A. Yes.

18 Q. First, let me ask you, and then I'll ask you about your
19 demonstrative slide about this. PTX-478 in your binder.

20 MR. DeVRIES: Mr. Thomas, you can take down this
21 demonstrative and illustrate the first page of this exhibit,
22 please.

23 BY MR. DeVRIES:

24 Q. Mr. Pershing, are you ready?

25 A. Yes.

1 Q. Okay. Thank you. So PTX-478, it says Reference Guide
2 in the top, it says, EagleView as the top and at the bottom,
3 it says, EagleView Measurement 6-12-2008.

4 Are you familiar with this document?

5 A. Yes.

6 Q. Okay. And what is it?

7 A. It was a guide put together to help train new employees
8 on using the system.

9 Q. Okay. And have you prepared some demonstratives to help
10 explain to the jury more about how the modeling functionality
11 was working?

12 A. Yes.

13 MR. DeVRIES: Mr. Thomas, let's please display
14 PTX-2.13.

15 BY MR. DeVRIES:

16 Q. So what are you depicting here, Mr. Pershing, about how
17 the EagleView software system operates?

18 A. So, this refers to part of that correlation step. So
19 these images are stills that were taken, that were involved in
20 the manual -- I think the cursors have been highlighted for --
21 to be easier to see in this projected case here.

22 But this depicts a technician that has placed cursors
23 on the corners of the building, the overhead view, and you can
24 see them, they were placed in the same physical location on
25 the -- on an oblique view.

1 So for instance, the blue cursor, you can see in the
2 overhead view is near that white object, and likewise, in the
3 oblique view, the blue cursor appears in the corner of the
4 house adjacent to that white object as well, and likewise for
5 the green and the red.

6 THE COURT: Can you use your laser when you are --

7 THE WITNESS: Sure.

8 THE COURT: That would be more helpful to the jury, I
9 think. Say that last part again, please.

10 THE WITNESS: So that you can see this blue
11 cross-hair is on the corner of the building adjacent to these
12 white objects and you can see that blue cursor was then
13 tagging the same corner of the building adjacent to these
14 white objects, and likewise for the green cursor, and likewise
15 for the red cursors. So that was one of the steps in this
16 program to initiate the correlation process here.

17 BY MR. DeVRIES:

18 Q. And you use the word, "correlation" again. How, if at
19 all, does this relate to the type of correlation that you
20 described earlier?

21 A. This is an embodiment of what I was describing earlier,
22 identification of points across multiple images that represent
23 the same spot in the physical structure that you're looking
24 at.

25 Q. Now, were there other features and aspects of the

1 software that we haven't talked about yet?

2 A. Yes, there's many other features and aspects.

3 Q. All right. Is -- was there some corresponding changes of
4 functionality in the EagleView software, or is there?

5 A. Yes.

6 Q. Okay. Have you prepared a demonstrative slide to show
7 that?

8 A. Yes, I have.

9 MR. DeVRIES: Mr. Thomas, let's please display
10 PDX-2.14.

11 BY MR. DeVRIES:

12 Q. Please explain to the jury what you're showing here.

13 A. So this is illustrating a feature in the software that
14 relates to what's called corresponding changes. And so it was
15 -- as I mentioned the birdhouse, one, any single viewpoint of
16 the house may not -- may not show you everything that you need
17 to see about the house, and as you're building this model,
18 it's useful to see multiple viewpoints of the house as you're
19 building this model.

20 And so what this depicts is, you've got a photograph of
21 the house, which is cropped out, so that, you know, the
22 background is not there for the slide, but what you do see is
23 you see a shaded overlay of roof model that's been overlaid on
24 top of the photograph, and what you can see notably here is
25 that there's good visual agreement between the profile of the

1 roof line and these different view -- and these two different
2 viewpoints with regard to the overlay of the model that's on
3 top of that image, and so you're looking at both a west
4 viewpoint and a north viewpoint of this house.

5 And what this slide is illustrating is that a
6 technician -- you can see here that there's not as -- the
7 agreement is not very -- you can see here the point of the
8 roof is here and yet the wire frame in the model is way up
9 here, so there's not good agreement between the reality of
10 what you see in the image verses where the model is being
11 placed on top of it.

12 And so the technician is able to, in this west view,
13 use this cursor to grab a portion of this model and
14 essentially drag this ridge line down to a lower elevation,
15 and as you can see, as they're dragging this ridge line down,
16 they drag it down to a placement where you get good visual
17 agreement between what's in the photograph and the model
18 that's on top of it.

19 So in doing so, as you're dragging this down, it's
20 highly useful for the other viewpoints to, to update, as
21 you're doing that dragging in near real time to see those
22 changes being made in the other viewpoints.

23 And so, as they're grabbing and manipulating a part of
24 the model in one viewpoint, as they're doing this
25 manipulation, if they have other viewpoints up on the screen,

11:23 1 those viewpoints are happening -- those corresponding changes
11:23 2 are happening on those other viewpoints simultaneously.

11:23 3 Q. Mr. Pershing, does the EagleView software system have
11:23 4 pitch determination tools?

11:23 5 A. Yes.

11:23 6 Q. And have you provided a -- prepared a demonstrative to
11:23 7 help illustrate to the jury an example of one such tool?

11:23 8 A. Yes, I have.

11:23 9 MR. DeVRIES: Mr. Thomas, let's please display
11:24 10 PDX-2.15.

11:24 11 BY MR. DeVRIES:

11:24 12 Q. Please explain to the jury what you're illustrating here
11:24 13 about how the EagleView software system works.

11:24 14 A. Okay. So in similar fashion to the previous slide, what
11:24 15 you see here is, you see a house that's -- has, you know, the
11:24 16 background has been cropped out, just to make it easier to
11:24 17 explain here, and what you see on the left-hand side is a
11:24 18 viewpoint, again, where, in this case, you can see, here is
11:24 19 the ridge line of the house, you can kind of see it underneath
11:24 20 that translucent yellow, and, you know, here is the ridge line
11:24 21 that represents where the plane is going to get a model, and
11:24 22 you can see that there's not good agreement here with what you
11:24 23 see.

11:24 24 You can see the slope of the house coming up here and
11:24 25 you can see a little bit of the roof poking out there. So

11:24 1 there needs to be an adjustment made in this case in order to
11:24 2 make the model more correct to what's seen in the photograph.
11:24 3 And so this pitch determination marker in this case, the way
11:25 4 it's being illustrated, is the cursor has been attached
11:25 5 essentially to this roof plane that you see in red, and it's
11:25 6 displaying an indication of what the pitch is of this
11:25 7 particular roof section.

11:25 8 And the technician is then able to modify the pitch
11:25 9 through the user interface. So in this case, there's a
11:25 10 decrease in pitch from what started out to be an 8.2 to a 7,
11:25 11 so essentially flattening out this roof section, in this case,
11:25 12 also pivoting around this eave.

11:25 13 So in flattening it out, this being less steep is going
11:25 14 to intersect this plane at a lower spot, lower height spot.
11:25 15 In this case, that change has now brought the model into
11:25 16 better agreement with what you see in the image.

11:25 17 So that's one means and there are other means in the
11:25 18 user interface for both determining and providing visual
11:26 19 feedback and other types of feedback for the user about pitch
11:26 20 determination.

11:26 21 THE COURT: So now you keep saying, "better in
11:26 22 agreement."

11:26 23 THE WITNESS: Mm-hmm.

11:26 24 THE COURT: Okay. Tell us what that means.

11:26 25 THE WITNESS: So this is -- so this is for

1 illustrative purposes in terms of this pitch determination
2 marker, but -- so the idea is once you've performed this
3 correlation and you have a coordinate system in which to build
4 your model, if you construct elements of this model, you can
5 then project that model back onto the original photographs and
6 that's what you see here is the model being projected back
7 onto these different photographs.

8 Now, if the -- if the coordinate system was set up
9 correctly and if your model is scaled correctly, when you
10 project this back onto the images, there should be very good
11 visual alignment of this -- of the model on top of the image.

12 THE COURT: So let me see if I understand what you're
13 saying.

14 The after picture that is on the screen here, as well
15 as the after picture that was on the screen before.

16 THE WITNESS: Mm-hmm.

17 THE COURT: Is now better in line with -- if you were
18 to take the after image that's on the screen now and put it on
19 top of the actual house, it would marry up.

20 THE WITNESS: Right.

21 THE COURT: Is that what you're saying?

22 THE WITNESS: That's correct.

23 THE COURT: And that's what you mean by, "in
24 agreement."

25 THE WITNESS: That's correct.

1 If the model that you generate, if you can project
2 that onto the image, it's in agreement, it accurately visually
3 lines up with all of the elements on the roof, then you know
4 that, one, you've got a complete model because all of the roof
5 sections are essentially accounted for in this model, and it
6 doesn't necessarily have to be shaded on.

7 You could just have kind of an open wire frame of
8 lines so you can see the pixels underneath, so it shows that
9 you've captured all the elements of the roof, but it also
10 shows, by means of visual agreement, these different
11 viewpoints that your confidence now is very, very high that
12 the angles and dimensions of this model are in agreement with
13 what is -- is in agreement with what's depicted in the
14 photograph.

15 THE COURT: Thank you.

16 BY MR. DeVRIES:

17 Q. Now, what does the -- this modeling functionality that
18 you just described in the EagleView software ultimately
19 generate?

20 A. So once we -- once you understand the model, the model
21 you can think of is a set of points that are connected to
22 lines that are connected to planes and polygons, so it's kind
23 of forming that sheet that you see there.

24 Once you have that model, then you can point that model
25 any way you want and take whatever measurements you want off

11:29 1 that model. For instance, you can then orientate this model
11:29 2 so that you're looking straight down on it, and then you could
11:29 3 use the data contained in that model to tell you all the
11:29 4 dimensions, the pitches, directions of the pitches, et cetera.
11:29 5 Q. And once you're satisfied that the model is correct, what
11:29 6 happens next in the EagleView system?

11:29 7 A. So once the -- once the model is completed, then it -- a
11:29 8 report is generated from the model and, you know, a report can
11:29 9 be a Word document or a pdf document or it could be an
11:29 10 electronic data file that contains the relevant information
11:29 11 that could be sent to somebody that could use that in their
11:29 12 own software.

11:29 13 Q. Are the reports you just described examples of the Roof
11:29 14 Reports that you mentioned earlier?

11:29 15 A. Yes.

11:30 16 Q. Let me ask you to please explain to the jury a little bit
11:30 17 more about what the Roof Reports look like.

11:30 18 Please start by looking at PTX-896 in your binder,
11:30 19 Mr. Pershing.

11:30 20 What is PTX-896?

11:30 21 A. So this depicts the cover page of one of -- an example
11:30 22 report that would be generated and delivered back to a
11:30 23 customer. This is a fairly complicated roof that you see as
11:30 24 part of the report.

11:30 25 Q. And have you prepared some demonstratives to assist you

1 in explaining some aspects of this Roof Report to the jury?

2 A. Yeah. I'll start with this cover page.

3 Q. Sure.

4 A. In the upper half of it, you can see the roof itself,
5 there's a note here, which I know is hard to read, but it
6 says: "In this 3-D model, facets appear as semi-transparent
7 to reveal overhangs."

8 What that's referring to is in this particular roof,
9 you've got some parts of the roof that overlap other parts of
10 the roof, which again, if you're just using overhead
11 photograph, you would have no way of knowing that.

12 THE COURT: Okay. Tell us what a "facet" is and tell
13 us what an "overhang" is.

14 THE WITNESS: So a facet would be a piece of the
15 roof, so this triangular piece here is a facet. This
16 irregular shaped piece it's a facet. So it's a flat part of
17 the roof, like, a continuous flat part of the roof that's in
18 the same plane here.

19 So in this case, here, you see this part of the roof
20 actually overhangs this part of the roof by a little bit, and
21 makes a little sliver here where there's kind of a translucent
22 line indicating that -- there's part of this roof that is
23 actually underneath part of this roof, and again, part of --
24 part of the magic of the technique that I developed is in
25 using these different oblique views, you can construct a model

1 in which you can see under things that you would not normally
2 be able to see just with an overhead view, and you can see --
3 you can construct a model that is able to, you know, provided
4 that you got the photographs from the different directions,
5 you can build a model that can incorporate information you see
6 from all different directions.

7 And then on the lower half of this page here, there's
8 a section for summary information. So it tells you up front,
9 you know, what's the total square foot -- total area in square
10 feet, how many roof facets are in this roof. I know it
11 doesn't look like it at first blush, but there's 62 different
12 roof facets that were calculated. The predominant pitch. So,
13 what's the pitch in most of those roof sections, which in this
14 case, is an 8-pitch. How -- you know, what's the total length
15 of all the ridges and valleys and rakes and eaves, et cetera,
16 which I'll show in another slide, and then there's a table of
17 contents showing the contents of other diagrams that are going
18 to be listed in the report.

19 MR. DeVRIES: And, Mr. Thomas, why don't we use
20 PDX-2.7 to assist Mr. Pershing.

21 BY MR. DeVRIES:

22 Q. Mr. Pershing, this demonstrative shows another page from
23 that same sample Roof Report, PTX-896.

24 Please explain to the jury what information is being
25 provided in EagleView's Roof Report here.

1 A. Sure. At the top, there's summary information, so this
2 is called a length diagram. So this one, this one took the
3 model and oriented it, so it's a top-down looking view, and
4 then it rotated on the page in order to fit it as best it can
5 on the page to make it as big as possible and it's clear to
6 explain.

7 And so this -- the information at the top of this
8 summary -- so for instance, it says, "ridge equals 135,
9 136 feet." So ridges are places in the model where it's a
10 high point. It's like that Snoopy doghouse where those two
11 roof facets come together. So for ridges and valleys or where
12 two roof planes come together in a V, like this, it's a low
13 point, like, where water would run down, and so there's
14 special materials that are often ordered for ridge lines and
15 for valleys beyond just the shingles and whatever else gets
16 put up on the roof.

17 So this tells you, you know, you need at least 135,
18 136 feet of ridge material, you need 316 feet of valleys,
19 rakes, are the -- are the edges of the roof, they're sloped
20 and eaves are the edges of the roof that are flat.

21 And in addition to that summary information, on this
22 diagram was depicted numbers next to each of these line
23 segments. So, for instance, the 20 indicates that eave is
24 20 feet long and the red 18 indicates that ridge is 18 feet
25 long, and the ridge is color-coded in red, the valleys are

1 color-coded in dotted blue line, the eaves are in black, et
2 cetera.

3 Q. If we go to your slide PDX-2.18, please explain to the
4 jury what this part of the EagleView Roof Report, what kind of
5 information it provides to the customer.

6 A. Right. So this is the pitch diagram. So you can see on
7 the left, the page has the overall structure again, only this
8 time, instead of labeling line lengths, what this labels is
9 the pitch value of each of those roof facets, as well as the
10 direction of the slope. So you can see in this case, for this
11 -- for this hip, which means there's three roof planes, the
12 pitch value is eight on each of these three sections, and the
13 roof is sloping from this ridge line to this eave, ridge line
14 to eave from the point down to the eave. So it shows pitch
15 and direction of the slope.

16 MR. DeVRIES: And if we look at 2.19, please,
17 Mr. Thomas, at PDX-2.19.

18 BY MR. DeVRIES:

19 Q. Finally, with respect to this document, Mr. Pershing,
20 please explain to the jury what additional information is
21 provided to an EagleView customer in this part of the Roof
22 Report.

23 A. Okay. So this is the area diagram. So again, at the top
24 of the page, it shows you the total area, in this case, 9,995
25 square feet. In the diagram it shows a breakout of the area

1 of each individual roof facet, which is important in the
2 industry, because if it's, say, a damaged roof, depending on
3 the nature of the damage, there's -- it's my understanding
4 that there's certain states have certain laws.

5 For instance, if there's a -- if more than a certain
6 percentage of the roof is damaged in an event and an insurance
7 company has to replace the entire roof and so -- or for that
8 matter, if a certain number of facets are damaged, they might
9 have to replace the entire roof. So this gives an indication,
10 if it's going to be a partial roof replacement, how much area
11 they would need to cover, and it can help them understand
12 whether or not the entire roof needs to be replaced or not.

13 Q. Mr. Pershing, how accurate are EagleView's Roof Reports?

14 A. They're, these days I think they're still typically 1 to
15 2 percent of what would be considered the best you can
16 otherwise measure. So, 1 to 2 percent of the true value,
17 however you could determine that. But there's been rigorous
18 statistical studies done by some of our larger customers that
19 have shown that our accuracy does fall within that range and
20 that the -- and that on average that is substantially better
21 than the result that you would get from a traditional manual
22 tape measure measurement.

23 Q. So, now I'd like to move on to a new topic, but you
24 mentioned it earlier. It's patents. Now, did the Patent
25 Office award you any patents for the technologies you

1 developed?

2 A. Yes.

3 Q. Okay. And there are -- let me ask you to look at your
4 binder. There are some exhibits there.

5 A. I just need to qualify. That 1 to 2 percent I was
6 referring to is on the total, total square footage. That's
7 usually what the statistic is quoted as as opposed to another
8 number you can apply there.

9 THE COURT: So, your estimates are within 1 to 2
10 percent of the actual square footage if someone got up on the
11 roof and measured it, customers have said that's how accurate
12 you are, within 1 to 2 percent; is that what you're saying?

13 THE WITNESS: That's what statistical studies have
14 shown with the, you know, with the imagery that was used for
15 those studies, yes.

16 BY MR. DE VRIES:

17 Q. And if I may clarify something about what you just said.
18 When you say that you are within 1 to 2 percent, is that
19 within 1 to 2 percent of the true, if we had perfect knowledge
20 of the roof, or is that within 1 to 2 percent of what a manual
21 measurement would show you traditionally?

22 A. So, I'm not sure if I should put on my geeky science hat
23 or...

24 THE COURT: I guess what he's asking is there's
25 always human error.

11:39 1 THE WITNESS: Right.

11:39 2 THE COURT: So, let's assume there's no human error.

11:39 3 Are you saying 1 to 2 percent of a person getting up there and

11:39 4 measuring it, assuming no human error, you're almost always

11:39 5 there within 1 to 2 percent of what that measurement would be?

11:40 6 THE WITNESS: So, the spirit of that would mean if

11:40 7 you had perfect knowledge of the size of that structure, and

11:40 8 if you were to measure it with, you know, these photographs of

11:40 9 say a six-inch resolution-ish, that you would land within a

11:40 10 couple percent. How you get there is a little more

11:40 11 complicated, I mean, because, you know, you have to have a

11:40 12 measuring stick to measure it against essentially. Right?

11:40 13 So, these studies involve sending multiple

11:40 14 experienced teams to measure the same roof independently and

11:40 15 then have them independently produce their results, argue

11:40 16 about, you know, if they disagreed, kind of go back and kind

11:40 17 of settle on an answer, and then use that answer as to compare

11:40 18 to what we are producing. And so --

11:40 19 THE COURT: You're within 1 to 2 percent of that?

11:41 20 THE WITNESS: Yeah, we're within a couple of percent

11:41 21 of what would be agreed upon as what the true value would be,

11:41 22 yes.

11:41 23 THE COURT: Okay. All right. Next question.

11:41 24 BY MR. DE VRIES:

11:41 25 Q. Sure. And the last question on this and then I will move

1 on to the patents. I think you referred to this earlier. How
2 did the accuracy of the EagleView Roof Reports compare to a
3 real world manual measurement, you know, the actual real world
4 manual measurements that were happening?

5 A. Right. So, if I recall, I mean, insurance companies,
6 even before we were on the scene, had some idea as to what
7 the, what the error rate is of somebody going up and measuring
8 a roof, and there's a number of reasons why manual
9 measurements can have some variation to them. One could be
10 the experience of the person doing it. Second, some of these
11 roofs that you see were very complicated, and they had very
12 complicated shapes on some of those roof faces. And so
13 there's -- people take shortcuts on their calculations. They
14 don't measure every single little divot, so they kind of
15 approximate the shapes. And in some cases, roofers, for
16 safety reasons, may not even get up on the roof and just try
17 to estimate and just kind of eyeball it.

18 So, all those factors combined, I think the insurance
19 company generally expected that, you know, if they get a hand
20 measurement of a roof, that's going to be -- have somewhere
21 between like a 6 to 10 percent margin of error on it. And,
22 you know, depending on specifically the person who goes up
23 there and measures the roof and what they do or don't do, that
24 number could be larger. For a simple roof it could be
25 smaller, but, like I said, there's kind of an accepted, you

1 know, the industry just kind of accepted the fact that these
2 measurements have a -- are going to have a certain amount of
3 error associated with them in terms of material orders and
4 whatnot.

5 Q. And then how did the EagleView system compare to that?

6 A. Right. So, I found that, again, through these studies,
7 that on average, you know, we were considerably better than
8 what would typically be expected from a hand measurement
9 result, and we were more repeatable, meaning that if you sent
10 three teams of people to measure a roof, you get three
11 different answers, you could look at the variation of how
12 different those answers were. Whereas, if you had three
13 different technicians measure the same roof with our software,
14 you know, the variations in those answers would be much, much
15 smaller than the ones that were done by hand. And so it was
16 more accurate and more reproducible.

17 Q. I'd like to move on to the patents. So, in your binder
18 in front of you --

19 MR. DE VRIES: Mr. Thomas, perhaps we can show the
20 front page of this, of each of these as I go through them.

21 BY MR. DE VRIES:

22 Q. PTX-002 is the '436 patent. And are you a named inventor
23 on this patent?

24 A. Yes, I am.

25 Q. Okay. And why don't we go to PTX-003. This is the '840

1 patent. Are you the named inventor on this patent?

2 A. Yes, I am.

3 Q. Okay. Let's go to PTX-004, the '770 patent. Are you the
4 named inventor on this patent, Mr. Pershing?

5 A. Yes, I am.

6 Q. Okay. Let's go to PTX-005. PTX-005 is the '454 patent.
7 Are you the named inventor on that patent, Mr. Pershing?

8 A. Yes.

9 Q. Okay. And finally, PTX-006, that's the '376 patent. Are
10 you the named inventor on that patent?

11 A. Yes.

12 Q. Okay. And then let me ask you, if you go to PTX-015 --

13 A. Okay.

14 Q. -- is this a provisional application that you filed in
15 April of 2007?

16 A. Yes, it is.

17 Q. Okay. And does this provisional application relate to
18 the '436 patent that we just looked at?

19 A. I believe so, yes.

20 Q. Okay. And then finally if we go to PTX-016, is that the
21 provisional application that you filed in October of 2008?

22 A. Yes.

23 Q. Okay. And does that provisional application relate to
24 the patents other than the '436 patent that we just looked at?

25 A. It does, yes.

11:46 1 Q. Okay.

11:46 2 MR. DE VRIES: So, we can take this down now, please,
11:46 3 Mr. Thomas.

11:46 4 BY MR. DE VRIES:

11:46 5 Q. Let me ask you about the patents, the five patents I just
11:46 6 described. Who owns those patents today?

11:46 7 A. They're all owned by EagleView.

11:46 8 Q. Okay. Now, why did you decide, Mr. Pershing, to file for
11:46 9 patents on the technology you had invented?

11:46 10 A. I wanted to -- I intended to bring those ideas forth in a
11:46 11 business and I wanted to protect those ideas.

11:46 12 Q. Okay. Now, I'd like to take you back to the inventor
11:46 13 notebook that we were looking at earlier, PTX-457, but let's
11:47 14 look at page 11 this time. On page 11, there are some notes
11:47 15 written. Who wrote the notes on that page?

11:47 16 A. Those are my notes.

11:47 17 Q. Okay. And then there's a date at the top, 11/14/06. Who
11:47 18 wrote that?

11:47 19 A. I did.

11:47 20 Q. And why did you write that?

11:47 21 A. That was the date that I made that entry.

11:47 22 Q. Okay. What you write, there's a subject line that says
11:47 23 "roofing calculations, summary of events," and then you say
11:47 24 "Monday, 11/13/06, started reading Patent It Yourself and
11:47 25 Nolo's Patents For Beginners." Do you see that?

11:47 1 A. Yes.

11:47 2 Q. And what are you referring to there?

11:47 3 A. So, I checked out a couple of books from the library. I
11:47 4 hadn't filed a patent before. I hadn't gone through the
11:47 5 process. And I just wanted to educate myself a little bit
11:47 6 around what that process is like, what elements need to be
11:47 7 included, you know, whether or not, you know, I guess trying
11:48 8 to decide, A, whether or not it seems like a good candidate
11:48 9 for a patent, and B, kind of what I need to do to get that
11:48 10 process rolling.

11:48 11 Q. And then on that same page you write "more patent
11:48 12 searching, found the following," and then there's some text
11:48 13 there.

11:48 14 A. Yes.

11:48 15 Q. At high level, what are you describing there?

11:48 16 A. At a high level, I was describing just going out on the
11:48 17 internet and trying to find materials, other patents that may
11:48 18 or may not be related to the same field that I was looking to
11:48 19 file a patent in.

11:48 20 Q. Okay. And did you find whether or not anyone else had
11:48 21 already patented the work that you were working on?

11:48 22 A. Yeah, I did not find a patent that covered what I was
11:48 23 thinking of patenting.

11:48 24 Q. Okay. And then if we go back to the document we looked
11:48 25 at a little bit earlier, which is PTX-15, that was that

11:49 1 provisional application that you filed in April of 2007. Was
11:49 2 this the first patent application that you filed on this
11:49 3 technology?

11:49 4 A. Yes.

11:49 5 Q. Okay. And why did you decide to file the first patent
11:49 6 application -- this provisional patent application at this
11:49 7 time, in other words, in April of 2007?

11:49 8 A. Well, like I said, in looking around, it looked like an
11:49 9 idea that was different than others that I had, than other
11:49 10 things that were coming up in the searches I was looking for.
11:49 11 So, I thought, well, if you file a provisional application,
11:49 12 it's not the full patent application, it's a lot less
11:49 13 expensive to file a provisional, and so I wanted to get the
11:49 14 provisional on file to get the ideas on record and to
11:49 15 establish a filing date, and then, you know, could decide at a
11:50 16 later time whether or not to spend the extra money in order to
11:50 17 complete the patent application.

11:50 18 Q. Did you go on to file the full application?

11:50 19 A. Yes.

11:50 20 Q. Okay. And then were patents ultimately awarded to you by
11:50 21 the United States Patent and Trademark Office?

11:50 22 A. Yes, they were.

11:50 23 Q. Okay. I'd like to ask you just briefly about one of the
11:50 24 patents from each of the three groups that are in this case.
11:50 25 So, let's turn back to PTX-2, Trial Exhibit 2, the '436

1 patent.

2 A. Okay.

3 Q. Mr. Pershing, what is the title of the '436 patent?

4 A. The title is Aerial Roof Estimation Systems and Methods.

5 Q. Okay. And what problem or problems were you trying to
6 solve in this patent at a high level?

7 A. High level, addressing the -- addressing the system that
8 would enable -- that would enable a roof measurement to be
9 performed remotely using aerial imagery and delivering back
10 the information to the requesting party.

11 Q. There's obviously a lot in the patent and I don't have
12 time to ask you about all of it, but if we turn to page 15 of
13 that patent, there's a Figure 8 there.

14 A. Okay.

15 Q. Please explain to the jury what you describe with
16 reference this figure in connection with your invention for
17 solving these problems?

18 A. Sure. So, this is kind of a flow diagram showing kind of
19 an embodiment of what that system would look like. So, the
20 first one says receive a first and second aerial image of a
21 building of different viewpoints, different views. So, you
22 saw that in some of my slides where you had at least a couple
23 different viewpoints of the building.

24 Correlate the first aerial image with the second aerial
25 image. Again, a couple of slides ago, you saw the photographs

1 that had the numbers on them starting that correlation
2 process.

3 Generating, based at least in part on the correlation
4 between the first and second aerial image, a three-dimensional
5 model of the roof. So, that refers to that model generation
6 portion where the roof models can be generated, you can
7 project it back on the images, et cetera.

8 And then prepare and transmit a roof estimate report
9 that includes one or more annotated top down views of the
10 model. And that was exemplified by that example Roof Report
11 where it showed the various diagrams and labelings of the
12 roof.

13 Q. Okay. I have just one more question about this patent.
14 If you'd please turn to page 28, there is something there
15 that's called an ex parte re-examination certificate.

16 A. Yes.

17 Q. And are you familiar with that?

18 A. Yes.

19 Q. Did you personally participate in any aspect of that
20 re-examination?

21 A. Yes, I did.

22 Q. And have you prepared a demonstrative slide to assist the
23 jury in explaining what your participation was?

24 A. Yeah.

25 MR. DE VRIES: Mr. Thomas, let's please take a look

1 at PDX-2.20.

2 BY MR. DE VRIES:

3 Q. What are you showing here?

4 A. So, that's me in the lobby of the U.S. Patent and
5 Trademark Office in Alexandria, I believe, holding the
6 birdhouse that I brought as a demonstration in the discussion
7 with the examiners.

8 Q. Okay. And was that the same birdhouse that you were
9 showing the jury earlier?

10 A. Yes, it is. Yes.

11 Q. Okay. And what was the outcome of this re-examination
12 proceeding?

13 THE COURT: What is a re-examination proceeding? Can
14 you tell the jury what that is?

15 THE WITNESS: Sure. So, the patent was -- the
16 initial application was examined I believe in a process called
17 prosecution where the examiner has an interaction with you and
18 decides, A, whether or not to give you the patent, and B,
19 decide on the final language of the claims of the patent that
20 they are going to issue you.

21 So, that patent was initially issued, and then we --
22 it was re-examined, meaning that there were some new
23 references to some prior art material, so there were some new
24 references to something else that was already preexisting that
25 a different set of examiners considered in light of this

11:54 1 patent. And what came out of that was a reissuance
11:54 2 essentially, an affirmation of the validity of the original
11:54 3 patent was reissued. There was some minor language changes to
11:55 4 a couple of the claims in the original patent, but other than
11:55 5 that, it was affirmed and reissued as a valid patent.

11:55 6 THE COURT: So, you had to go back down to Washington
11:55 7 or I guess Virginia and meet with different officers in the
11:55 8 examination procedure, re-examination proceeding?

11:55 9 THE WITNESS: Yeah, I believe the officers that were
11:55 10 involved in the re-examination proceeding were different than
11:55 11 the original ones that were involved in the first issuance.

11:55 12 THE COURT: Thank you.

11:55 13 BY MR. DE VRIES:

11:55 14 Q. Okay. So then let me move on to one patent from the
11:55 15 second of the three groups that are at issue in this case.
11:55 16 So, if you would please, Mr. Pershing, turn to PTX-05. That's
11:55 17 the '454 patent again.

11:55 18 A. Okay.

11:55 19 Q. What's the title of this patent, Mr. Pershing?

11:55 20 A. It's Concurrent Display Systems and Methods for Aerial
11:55 21 Roof Estimation.

11:55 22 Q. Okay. And at a high level, what problems does this
11:55 23 invention solve?

11:56 24 A. So, this addresses elements of the user interface that
11:56 25 somebody interacts with, which -- in which there's multiple

1 viewpoints, multiple viewpoints of the model and images that
2 are in view at one time. And if the operator makes a change
3 to an element in one of the views, that they concurrently
4 update in all the views as the change is being made in near
5 realtime. So, at least to the operator it looks as if those
6 changes are happening concurrently in the different
7 viewpoints.

8 Q. Again, I don't have time to ask you about every single
9 aspect of the patent, but if you would look at page 36,
10 there's a Figure 11.

11 A. I'm there.

12 Q. Thank you. With reference this figure, please explain to
13 the jury what this patent describes as an aspect of solving
14 the problems you were just talking about.

15 A. Right. So, again, this is a flow diagram kind of
16 describing an embodiment of that which I had earlier described
17 in one of those slides. So, it starts with display a first
18 and second aerial image of a building having a roof and each
19 of the images providing a different view, which is those
20 multiple viewpoints.

21 Receive an indication of a feature of the building
22 shown in the first image. So, for instance, an indication of
23 a feature would be, say, a part of the model or something on
24 the image that the user could grab and interact with or do
25 something with.

1 And then next step is modify a three-dimensional model
2 of the roof based on the received indication. So, for
3 instance, the user grabs an element they can manipulate and
4 they start manipulating it, and that manipulation translates
5 into some modification to the model that's being built in
6 memory there.

7 And then lastly, concurrently display a projection of
8 the feature onto the first and second images. So, the
9 operator is grabbing an element, they're manipulating it.
10 Behind the scenes in the computer code, that's causing a
11 change to the model of the roof, and that model is then being
12 projected back onto the images that they're looking at. And
13 so to the operator it looks like they're doing something
14 that's manipulating a model that's changing and updating in
15 all the different viewpoints.

16 Q. Thank you, Mr. Pershing.

17 Finally, on the patents, I'd like to ask you about one
18 of the patents from the third and final group of patents at
19 issue in this case. Please turn back again to PTX-003.
20 That's the '840 patent. And what's the title of this patent,
21 Mr. Pershing?

22 A. Pitch Determination Systems and Methods for Aerial Roof
23 Estimation.

24 Q. Okay. And at a high level, what problem or problems does
25 your invention in this patent relate to?

11:59 1 A. So, this addresses, this addresses methods that were
11:59 2 developed for determining the pitch and interactive means of
11:59 3 determining the pitch of sections of the roof in the software.

11:59 4 Q. Okay. And I'd like to ask you in particular about Figure
11:59 5 10 of this patent. That's at page 32 of the trial exhibit.

11:59 6 A. Okay.

11:59 7 Q. And again, I don't have time to ask you about every
11:59 8 single aspect of the patent, but could you please explain with
11:59 9 reference to this figure an aspect of the invention described
11:59 10 in this patent related to the problems you just described?

11:59 11 A. All right. So, much like the other diagram, it's a flow
11:59 12 showing an embodiment as how this is done in practice or can
12:00 13 be done in practice, which again starts with displaying an
12:00 14 aerial image of a building with roof sections that have
12:00 15 pitches.

12:00 16 Display a pitch determination marker that the user can
12:00 17 operate, so displaying some element on the screen that either
12:00 18 communicates the value of the pitch or visually allows the
12:00 19 operator to kind of make a visual determination of the pitch
12:00 20 against the image.

12:00 21 And then receiving via the displayed pitch
12:00 22 determination marker an indication of the pitch of one or more
12:00 23 of the roof sections. So, again, using the pitch
12:00 24 determination marker as the vehicle having a means of
12:00 25 communicating back to the user the pitch of what they're -- of

1 the section that they're operating on.

2 And then finally, modify a three-dimensional model of
3 the roof based on the received indication of the pitch of the
4 roof. So, again, an opportunity for that manipulation to
5 result in a change to the model based on what the user did
6 with that pitch determination marker.

7 Q. Okay. We can put that away and take that down. I have
8 two more topics that I'd like to ask you about, Mr. Pershing,
9 as part of my questioning of you. The first is, I'd like to
10 ask you about whether EagleView was commercially successful in
11 its business, and then I finally would like to ask you about
12 Xactware, the defendant in this lawsuit.

13 A. Okay.

14 Q. I'll give you a moment to get some water.

15 A. Sure.

16 Q. So, let's start with the first one. Mr. Pershing, you
17 mentioned earlier today that EagleView first offered its
18 products to consumers in January of 2008; is that right?

19 A. Correct.

20 Q. Okay. Please explain to the jury how EagleView first
21 offered its products to consumers when it opened its doors.

22 A. So, we had made a contact with a person who had operated
23 a website, a forum that roofers and others in the roofing
24 industry went to for news and blogging and that kind of stuff.
25 And so she had a mailing list of folks that were either

1 subscribers or former subscribers to her website. There was
2 about 30,000 names. I mean, these were either roofers or
3 material suppliers or just generally people involved in the
4 industry. And she had graciously agreed to send out an e-mail
5 on our behalf through her mailing list letting the world know
6 that we exist and that we're open.

7 Q. Okay. What reaction did EagleView have to that initial
8 e-mail?

9 A. So, I mean, there was a little bit of angst when we sent
10 it out because that's a lot of people to send it out to, and
11 so it was, you know, we were kind of right in the balance
12 between is anybody going to respond or are we going to get a
13 deluge of responses or what's going to happen because, you
14 know, like I said, we were only a few people and a couple of
15 phones at that point.

16 So, as I recall, the e-mail went out around say 10:00
17 a.m., and approximately 15 minutes later, the phone started
18 ringing, and it -- you know, we got, I mean, from that point
19 forward, we got kind of just a steady, but not overwhelming
20 for the resources we had at the time, kind of a string of
21 calls.

22 At first, especially the first couple of days and
23 weeks, a lot of the calls being of the nature of, you know, is
24 this real, do you guys really do this remotely, you know, a
25 lot of skepticism about that we could either do it at all or

1 that we could do it accurately. And which later in the
2 conversation typically came to, well, send us an example, and,
3 you know, again, these being predominantly roofers at this
4 point, they'd send us an example of a roof that they had
5 measured that they felt that they had confidence in what they
6 were going to get back or what they had measured, and we'd do
7 it and we'd send the report back. And then the next
8 conversation was, you know, surprise and excitement, well, how
9 did you guys do that? This is amazing.

10 And so that pattern repeated over and over for the
11 first number of weeks until, you know, until as -- and then
12 we'd get orders from those folks that, you know, had tried us
13 out and started believing in our product.

14 Q. And how, explain to the jury how the number of reports
15 that EagleView was delivering in that first year in 2008, how
16 did that change over time during that year?

17 A. So, you know, the first couple of weeks, it was, you
18 know, a handful of orders a day. Like I said, people just
19 kicking the tires, you know, not really believing that the
20 service was real or whatever. So, you know, we'd have -- we'd
21 do like five reports in a day or 10 reports in a day and, you
22 know, some few weeks in, we were maybe up to like an average
23 of like 15 or 20 reports a day. We had to bring on a few more
24 technicians to train up, you know, kind of anticipating
25 further growth. And a few weeks after that we had our first

1 kind of surge that you could say in orders that resulted from
2 a hailstorm in Texas.

3 So, there's this town, McKinney, Texas, that had a
4 hailstorm and a bunch of roofs were damaged, and there
5 happened to be a few folks down there that were using us, and
6 so we had a spike. I think we did a hundred orders in a day.
7 And that was a big yea, yea team celebration. And it was kind
8 of our first introduction, too, to the surge nature of the
9 business. You know, you've got kind of a baseline volume and
10 then things get surged dramatically if there's a storm that
11 damages a lot of roofs.

12 But as the weeks rolled on, soon afterwards a hundred
13 became normal for a day, and then -- or normal-ish. And then,
14 you know, I think towards the, yeah, I think towards the end
15 of, you know, towards the middle, latter part of the year,
16 doing a hundred orders in a day was normal, and then that
17 volume kept incrementally going up. It was kind of a delicate
18 balance between trying to expand your capacity to take on more
19 orders, but not getting so far ahead of yourself that you ran
20 out of money in the process as we attempted to take on more
21 business.

22 Q. Please turn to Exhibit PTX-310, 310 in your binder.

23 PTX-310 says Investor Presentation, and then there's a date,
24 November of 2008.

25 A. Um-hmm.

12:07 1 Q. What is this document?

12:07 2 A. So, this is a document that was prepared as a pitch deck
12:07 3 to go out and secure funding for the company. I mean, up
12:07 4 until that point, we had, you know, taken relatively small
12:07 5 investments from a number of different people to kind of
12:07 6 bootstrap the process. I think earlier in the year, a few
12:07 7 months earlier we had our biggest investment to date before
12:07 8 that, which was about, I think it was approximately a total of
12:07 9 a million dollars from a different number of investors. But
12:07 10 given what we -- where we wanted to go in terms of being able
12:07 11 to scale to where we needed to be to really build the
12:07 12 business, we wanted to bring on a larger investor that could
12:08 13 provide funding for the, you know, for the growth for the next
12:08 14 year or two, but also provide a little bit of cushion, you
12:08 15 know, if things, things just don't work out as, you know, as
12:08 16 predictably as we thought. So, this is a deck that was our
12:08 17 pitch to try to raise money.

12:08 18 Q. If we turn to page 3, it says Management Team, and it has
12:08 19 Chris Pershing at the second bullet. Is that you?

12:08 20 A. Yes.

12:08 21 Q. Okay. And what was your role at the time in November of
12:08 22 2008?

12:08 23 A. Chief technology officer. It's abbreviated CTO.

12:08 24 Q. And if we look at page 19 now, it says Reports Delivered
12:08 25 to Date. Does that refer to EagleView's Roof Reports?

12:08 1 A. Correct.

12:08 2 Q. And what is that graph showing?

12:08 3 A. So, that shows from month over month from July through
12:09 4 October the deliveries that we made and then projections for
12:09 5 November, December. And so I would take a look at July, you
12:09 6 know, we were averaging at that point close to a hundred
12:09 7 reports a day, and by October, that was, you know, not quite,
12:09 8 not quite three times that amount. So, a few hundred a day.
12:09 9 And then, I mean, obviously this is 2008, but as time went on,
12:09 10 that went from hundreds a day to many hundreds a day to
12:09 11 thousands per day.

12:09 12 Q. And if we look at page 20 of this exhibit, it says
12:09 13 Current Revenue to Date. What does it show there?

12:09 14 A. So, that shows month over month revenue that the company
12:09 15 brought in between April 2008 and October 2008.

12:09 16 Q. Okay. And how did, for example, October 2008 compare to
12:09 17 April 2008?

12:10 18 A. October is \$42,000-ish and October was almost 300 --
12:10 19 well, \$309,000. So, what, probably not quite an eight times
12:10 20 growth in revenue, maybe seven times, seven, eight.

12:10 21 Q. And I think you mentioned this at a high level, but how
12:10 22 did EagleView's sales continue to increase, if at all, after
12:10 23 its first year in business?

12:10 24 A. So, I believe we closed out our first year approximately
12:10 25 a million-and-a-half dollars in revenue total, and the next

1 year was more than three times that, and we were doubling and
2 tripling every year thereafter for the next, I want to say at
3 least four or five years.

4 Q. Okay. Now, what was EagleView's initial client base?

5 A. Initially, you know, day 1, like I said, it was an e-mail
6 blast out to, it was predominantly folks in the roofing
7 business, so predominantly roofing contractors. There is, I'm
8 sure there's -- you know, roofing contractors also typically
9 will do work for insurance companies, and so I'm sure there
10 were names on that list that were involved in claims adjusting
11 as well. But initially, knowing that, you know, we still
12 needed to kind of get our sea legs into kind of scale,
13 initially we were predominantly serving -- the people that
14 were calling us were roofing contractors.

15 Q. And during EagleView's first year, how, if at all, were
16 EagleView's interactions with insurance companies at a high
17 level?

18 A. So, I'd say it was within, you know, a couple of weeks
19 after we launched, we started getting inquiries from insurance
20 adjusters, which then quickly followed on to the beginnings of
21 conversations with insurance companies. Insurance companies,
22 you know, if your house is insured and a hailstorm hits and
23 your roof is damaged, you know, that results in a claim to
24 your insurance company, or if the wind blows your roof off or
25 if a tree falls on it, et cetera. Right? So, we started

1 getting inquiries from insurance companies, the same type of
2 pattern, you know, just who are you, are you real. You know,
3 they dipped their toe in the water ordering some reports to
4 kind of test their accuracy.

5 There were other insurance companies, which we found
6 out later, who during that -- those initial months were kind
7 of secret shopping us. They would order through a third party
8 to again kind of kick the tires and figure out, figure out if
9 we were real and if we could deliver on what we said we
10 delivered.

11 Q. Now, was EagleView's success, its commercial success with
12 roofers and insurance companies, was that noticed outside the
13 industry?

14 A. Eventually, yes.

15 Q. Okay. What are you referring to?

16 A. So, you know, as -- when you say outside the industry, I
17 mean, I'm assuming -- the industry you're talking about is
18 probably roofing contractors, insurance companies, et cetera,
19 that have an interest in those reports, but outside the
20 industry, like, you know, attention from different press
21 outlets and events and whatnot, like best places to work for
22 and that kind of stuff.

23 Q. Were you ever interviewed for any articles?

24 A. Yes.

25 Q. Okay. If you'd please turn to PTX-511. PTX-511 is an

1 article from CNN Money, and it's called One Small Company
2 Reinvents a \$30 Billion Market. Were you interviewed for this
3 particular article?

4 A. Yes, I was.

5 Q. Okay. And who is that a picture of there at the top of
6 the article?

7 A. That's me.

8 Q. Okay. Do you recall reading this article when it came
9 out?

10 A. Yes, I do.

11 Q. Okay. It says, I'm not going to read all of it, but at
12 the very top it says, "Sometimes one bright idea, and a whole
13 lot of work to implement it, can reshape an entire industry.
14 In 2006, roofing salesman David Carlson vented to his
15 brother-in-law about his frustrations from climbing onto
16 rooftops and manually measuring to give estimates on repair
17 work. Measuring by hand is a tedious process, plus people
18 fall off roofs. Carlson's brother-in-law, Chris Pershing,
19 happened to be a software engineer. He did more than listen.
20 Pershing set out to build a software program that would
21 literally change the way the \$30 billion roofing industry
22 views America's rooftops." How did you feel when you read
23 this article?

24 A. I was -- I mean, it was exciting to see, but it was also
25 a bit of a surreal moment to kind of see yourself up on a news

1 site like CNN with that article. I thought it was a very
2 flattering article, both to me and the company as well, and
3 you do this phone interview and you really never know what
4 they're going to actually write about, so I was very pleased
5 with it. And like I said, it was an odd moment, but it was a
6 happy moment.

7 Q. You mentioned I think an award or some awards, but were
8 there any awards in particular that stand out in your mind as
9 ones that you are particularly proud of?

10 A. Yeah, one I thought was neat was Inc. Magazine puts out a
11 list every year of the fastest growing private companies in
12 America. And I think to qualify for that you have to show --
13 there's a pretty aggressive minimum threshold over five years,
14 you have to have a five-year track record of very high growth
15 in order to even make the cut for the list. And so we made
16 their list and was published in their magazine. I want to say
17 we were in our group like number 137 or something like that.
18 So, that was -- I thought that was a proud moment. That
19 really kind of validated just the tremendous growth that we
20 had seen over those years, and that was fun to see.

21 Q. And were there any other instances of recognition outside
22 of the industry that you can -- of EagleView that you
23 particularly recall?

24 A. Well, I mean, there was -- I mean, it's not really like a
25 press award recognition. There's a trade show early on where

1 this woman had approached me and asked me if I was the founder
2 of EagleView, and I said yeah, and she just -- it was at a
3 roofing trade show, so she was involved in the business. But
4 she just wanted to come by and personally thank me because her
5 husband had broken his back, you know, falling off a roof, and
6 you know, she just wanted to -- sorry -- just to express her
7 thanks.

8 Q. Mr. Pershing, why do you believe that EagleView has been
9 so successful?

10 A. You know, I think we had a, you know, I think it was a
11 combination, but I think we had a great product. We had a
12 great product that not only saved people time and effort, but,
13 you know, it allowed the roofing business and the insurance
14 business to operate more efficiently. People didn't have to
15 make appointments to go out and measure a roof. People didn't
16 have to have people have -- you know, roofing people that went
17 out to the house could come with a professional report in hand
18 and not have to spend their time up on the roof. You know, we
19 were more accurate, and, you know, from a safety standpoint,
20 it saves a lot of risk of somebody getting up on a dangerous
21 slippery roof and having a catastrophic accident. So, I mean,
22 there's a lot of benefits. And to boot, it was cheaper than
23 sending somebody out to go measure it. So, it was just a
24 better way of doing things. And you combine that with, you
25 know, a very talented team of people that executed well on

1 bringing it out to the marketplace, and we enjoyed a
2 tremendous amount of success.

3 Q. Did you expect, Mr. Pershing, EagleView to be so
4 successful when you started working on this technology out of
5 your basement in 2006?

6 A. You know, I don't think it's fair for anybody to expect
7 something to grow to the scale that it grew to, but, you know,
8 I think we had an idea just how big the market potentially
9 was, and it was always a question mark, like how well can we
10 execute this? How well is it going to be received and
11 adopted? And early on, just how well do we actually compare
12 to existing techniques out there? And so, you know, I think
13 our expectation was that it should do well, it should provide
14 a good, you know, it should be a good business, it should
15 provide a good income for our families. But as far as, you
16 know, as far as where it ended up going, I don't think anybody
17 can really predict that.

18 MR. DE VRIES: We can take this down, Mr. Thomas.

19 BY MR. DE VRIES:

20 Q. So, I have my final topic, and that's I'd like to ask you
21 about the defendant in this case, Xactware. Let me start by
22 asking this. Have you personally, Mr. Pershing, interacted
23 with Xactware, the defendant in this case?

24 A. Yes.

25 Q. Okay.

12:20 1 A. Many occasions.

12:20 2 Q. I'm sorry. What did you say?

12:20 3 A. On many occasions.

12:20 4 Q. When is the first time that you recall interacting with
12:20 5 Xactware?

12:20 6 A. So, again, as part of kind of inquiry calls that we got
12:20 7 during the first weeks, I think a few weeks into our business,
12:20 8 I got a call from a gentleman named Jeff Taylor at Xactware.
12:20 9 This is the first time I had spoken to anybody from that
12:20 10 company. That's the first time I had even heard of the
12:20 11 company. But he had called much like a lot of the other calls
12:20 12 that came in, they'd heard, you know, rumor mill about us and
12:21 13 he looked us up and wanted to call us and, you know, talk to
12:21 14 us, see what we're, what we're about, and he explained a
12:21 15 little bit about what they're about. And that was, as near as
12:21 16 I can recall, that was kind of the context of the first call.

12:21 17 Q. And what do you recall him explaining about what Xactware
12:21 18 was about at the time of that call in early 2008?

12:21 19 A. So, my understanding at the time was Xactware was
12:21 20 involved in the insurance claims business, and so you've got a
12:21 21 bunch of different insurance companies that use their
12:21 22 software. And, for instance, if there is, a tree falls on the
12:21 23 house, the insurance company starts a claim, they need to
12:21 24 assign an adjuster to go out and assess what happened, they
12:21 25 might need to have various contractors come in and do the

1 work. And in order to facilitate that, they create an
2 electronic claim file, which goes into Xactware's system, and
3 then it can be routed and assigned to other contractors and
4 other companies that have to do something to that claim, and
5 those companies can do something, put in their notes and what
6 they did, and then route that claim onto the next station.
7 And so their business, as I understood it then, was, you know,
8 software that facilitated the processing of claims for
9 insurance companies.

10 Q. And during or after that call, was there any discussion
11 of EagleView and Xactware possibly working together?

12 A. Yes. So, I mean, the insurance companies at that time
13 were, again, starting to contact us, dip their toe in the
14 water, and they were involved, Xactware was involved in claims
15 processing, so it seemed like, it seemed like an interesting
16 avenue to pursue to see how the two companies could
17 potentially work together.

18 I think one of the first inquiries was, you know, is it
19 possible for EagleView to export our model data in a file
20 format that could be imported and reconstituted inside of
21 their claims processing software so they could display a CAD
22 model of the roof inside their software.

23 Q. And did EagleView send one of its 3D roof models to them
24 for testing?

25 A. Yes. So, we did some feasibility testing where I

1 exported the data that composed the model, a bunch of points,
2 describing how the points are connected and how those lines
3 are connected into polygons, and sent that data file over with
4 some, you know, with whatever instructions an engineer on
5 their side would need in order to understand what was in the
6 data file, and then they verified that, yeah, they could take
7 those datapoints, they could reconstitute it into a format
8 that their software could understand.

9 Q. Did EagleView go on to visit Xactware in 2008?

10 A. Yes, we did.

11 Q. And what was the first visit that you can recall?

12 A. It was I believe April of '08. They had invited us down
13 to their corporate offices in Utah.

14 Q. And did you attend that meeting?

15 A. I did.

16 Q. At a high level, what occurred during that meeting?

17 A. At a high level, it was, I guess you could call it a meet
18 and greet. So, on their side, there was their CEO and the
19 person that I had been interacting with, Jeff Taylor, and a
20 couple of their other executives, and, you know, we presented
21 to them a little bit about our company and kind of what our,
22 you know, what we're doing and why we're doing it, and, you
23 know, they went into a little bit greater detail about what
24 they do. So, it was a -- and they gave us a tour of their
25 building. So, it was maybe a couple hour meeting.

1 Q. Did you have any discussion of EagleView patents in that
2 meeting?

3 A. So, at the time, at the time we only had the one patent
4 filing, so it was what's called a patent pending, so it hasn't
5 been issued yet. It's an application that's sitting with the
6 Patent Office that they haven't yet reviewed or issued. So,
7 we informed them that we were patent pending on that one
8 application.

9 Q. How did you feel in general at that April 2008 meeting
10 where you visited Xactware at their corporate offices in Utah,
11 how did you feel that that went?

12 A. I thought it was going pretty well up until close to the
13 end of the meeting, and I think their CEO, Jim Loveland, I
14 think either him or someone right next to him --

15 THE COURT: Who?

16 THE WITNESS: I believe it was Jim Loveland was the
17 CEO at the time.

18 THE COURT: Okay.

19 THE WITNESS: Posed a question, you know, just, so,
20 how long have you -- how long have you guys been in business,
21 how long you been doing this? And we said, oh, you know,
22 three months. Right? And you could just kind of feel the air
23 deflate out of the room at that point. There was some kind of
24 eye rolling, like, oh, why are these guys here? Because
25 they're this big enterprise company and these guys have been

1 out in business for a couple of months.

2 And so the meeting ended shortly after that, and you
3 could just feel that there was a loss of interest in talking
4 to us at that point because I think that they just felt that
5 we were too new, too small, and not, I don't know, perhaps not
6 relevant at that point.

7 BY MR. DE VRIES:

8 Q. Did there later come a time, Mr. Pershing, after that
9 April 2008 meeting when you flew out to meet with them that
10 Xactware again expressed interest in working with EagleView?

11 A. Yes.

12 Q. Okay. And what are you referring to?

13 A. So, some months had passed, and I mean, in hindsight, I
14 think there was -- as more insurance companies were trying us
15 out and starting to use us, I think there was more interest
16 and more inquiries being made by their customers as to whether
17 or not -- you know, trying to get, encourage Xactware to
18 integrate with our system so that they could, the insurance
19 company could use their claims processing system to, you know,
20 incorporate what -- you know, incorporate our ability to do
21 the roof measurements and then keep that as part of the claim
22 file that's being passed around. And so that rekindled the
23 discussions.

24 Q. And were you personally involved in efforts to integrate
25 EagleView's technology with the Xactware platform after that

12:28 1 time?

12:28 2 A. Yeah. There was another -- the next time we saw them in
12:28 3 person, I believe, was in January of '09. We had invited --
12:28 4 we had invited them out to us to continue those discussions.
12:28 5 There were some discussions prior to that going on back and
12:28 6 forth primarily between my team and their team as far as kind
12:28 7 of working out some logistics as to how that would happen.

12:28 8 MR. DE VRIES: And, your Honor, I was just going to
12:28 9 say, I know we're at 12:30 and I wanted to check.

12:28 10 THE COURT: Yes. We'll pick up there. So, we'll
12:28 11 pick up. So, Mr. Pershing, you can step down so I can speak
12:28 12 to the jury for a moment. Thank you.

12:28 13 THE WITNESS: Thank you.

12:29 14 THE COURT: So, ladies and gentleman, you may recall
12:29 15 that we're going to have -- we have a short day here today
12:29 16 because of a court conflict.

12:29 17 A couple of things I want to talk to you about before
12:29 18 we go. One or maybe perhaps more of you have asked to review
12:29 19 again the video that you saw yesterday, which is a general
12:29 20 description of patent, patent law, patent issues. I'm going
12:29 21 to afford you that opportunity, and so my thinking is that I
12:29 22 will -- not I, but the Court will treat you to lunch tomorrow,
12:29 23 and you can watch it while you have lunch tomorrow. Okay?
12:29 24 You certainly don't have to eat lunch. I mean, you can pack
12:29 25 your lunch if you want. But, Mr. Roney, before you leave

1 today, will give you a menu and you will pick out what you
2 want to have for lunch.

3 If you go forward and watch the video, you will all
4 watch it together. So, either you all agree to watch it, or
5 you don't watch it. So, if you all eight want to watch it,
6 I'm going to grant that request, and you can watch it while
7 you're having lunch. But do not talk during it, don't talk
8 anything about the case, et cetera. You're just going to
9 watch it again just as sort of a refresher as to the law and
10 the issue of patents. Okay?

11 So, think about that. Talk amongst yourselves if you
12 want to watch it. And if you do, then I'm going to allow you
13 to do that during lunch tomorrow and we will buy your lunch.
14 Okay?

15 So, we'll pick up tomorrow at 9. We'll have a full
16 day again tomorrow. So, if you can meet downstairs at no
17 later than maybe quarter to tomorrow, that would be great.

18 My two instructions. Don't talk about the case,
19 don't talk about what you have seen or heard, anything about
20 what's going on here in the courtroom. Okay? It's very
21 important you abide by that instruction.

22 And my second instruction, have a good day and a good
23 evening. I'll see you tomorrow. Okay.

24 THE DEPUTY COURT CLERK: All rise.

25 (The jury exited the courtroom at 12:31 p.m.)

1 THE COURT: Okay. If we can just be seated for just
2 a couple minutes, a couple seconds. I have a couple of
3 things. So, let's figure out the logistics so, Mr. Bromberg,
4 you're not standing through the entire trial. I apologize for
5 that. Maybe scooch the podium back a little, Mr. De Vries. I
6 don't know. You folks figure it out.

7 As far as the monitor, I don't know that there's any
8 other way to do it. It can't be on that side because it will
9 block the jury, and it can't be much here because it will
10 block me, so maybe you folks can work something out that's
11 agreeable to both of you.

12 Secondly, may I get two copies of both parties'
13 opening slides?

14 MR. ALPER: Yes, your Honor.

15 THE COURT: Thank you. And I think that's it. If
16 you folks need me tomorrow, I have a conference call at 8:30,
17 it shouldn't take too terribly long, so if you need me, I'll
18 come down like maybe a quarter to 9. Just give word to Mr.
19 Roney. Okay?

20 MR. ALPER: You Honor, one thing very briefly. We
21 know you have a commitment so I'll keep this brief.

22 THE COURT: Yes.

23 MR. ALPER: After listening to openings, going back
24 and taking a look at the transcript, we do have a problem with
25 those non-infringement arguments, and we wanted to figure out

12:32 1 a way to efficiently raise this for you to evaluate. We
12:32 2 thought we could submit a very short paper crystalizing the
12:32 3 issues for you to review.

12:32 4 THE COURT: If you could do that, that would be
12:32 5 helpful and I could read them tonight, and then I can digest
12:32 6 them over the evening, and then we can talk about it maybe
12:32 7 before I take the bench. And both sides are free to submit
12:32 8 whatever they want. Are the defendants aware of what your
12:33 9 issues are?

12:33 10 MR. ALPER: Yes. It's the same issues that we were
12:33 11 discussing.

12:33 12 THE COURT: All right. So, whatever you want to
12:33 13 submit, something brief that I can read tonight, I'm happy to
12:33 14 do that.

12:33 15 MR. ALPER: Thank you, your Honor.

12:33 16 MR. CHRISTIE: Your Honor, one more quick issue, if I
12:33 17 may.

12:33 18 THE COURT: Yes.

12:33 19 MR. CHRISTIE: With regard to cross-examination,
12:33 20 obviously that's sort of a spur of the moment thing and we
12:33 21 don't know exactly how it is going to play out. There may be
12:33 22 some introduction of exhibits through their witnesses. I
12:33 23 understand your Honor likes to do things efficiently.

12:33 24 THE COURT: Yes.

12:33 25 MR. CHRISTIE: I don't quite know how we can

12:331accommodate that given the spur of the moment nature of cross.

12:332So, I just wanted to see if your Honor had a preference as to

12:333admitting documents through their witnesses on cross.

12:334THE COURT: As part of your invalidity case, you

12:335mean; is that what you're saying?

12:336MR. CHRISTIE: As part of our cross-examination of

12:337their witnesses starting tomorrow.

12:338THE COURT: But the defendant would be offering them.

12:339MR. CHRISTIE: No, no, no -- yes, yes, exactly.

12:3310THE COURT: Yes. Well, that's fine. You can do it

12:3411through cross.

12:3412MR. CHRISTIE: Okay.

12:3413THE COURT: You can do that through cross. It's as

12:3414if it goes to your invalidity defense, though, I presume.

12:3415MR. CHRISTIE: Well, it goes to a bunch of things,

12:3416including --

12:3417THE COURT: Yes. I don't have any problem. I'm sure

12:3418you don't either.

12:3419MR. DE VRIES: No problem.

12:3420THE COURT: Yes, no problem.

12:3421MR. CHRISTIE: Thank you, Judge.

12:3422THE COURT: Okay? You all know my instruction. Have

12:3423a good day. Thank you.

12:3424(Proceedings concluded at 12:34 p.m.).

12:3425- - - - -

1
2 I certify that the foregoing is a correct transcript
3 from the record of proceedings in the above-entitled matter.
4

5 /S/ Theodore M. Formaroli, CCR, CRR, RMR, FAPR
6 Court Reporter

7 September 10, 2019
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