

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**NEARMAP US., INC.,
Petitioner,**

vs.

CERTIFIED COPY

**EAGLE VIEW TECHNOLOGIES, INC.,
Patent Owner.**

IPR2022-00734

Patent 9,135,737 B2

CM#62574.4US01

DEPOSITION OF

DAVID A. FORSYTH, PH.D.

REMOTELY HELD VIA VIDEOCONFERENCE

JANUARY 24, 2023

**REPORTED BY:
LYNETTE MARIE NELSON, CSR NO. 11585, RPR
CRR, CRG, CCRR, REALTIME SYSTEMS ADMINISTRATOR
JOB NO. 23-119574**

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IRP2022-00734

Patent 9,135,737 B2

CM#62574.4US01

DEPOSITION OF DAVID A. FORSYTH, PH.D.,
taken by the Patent Owner, commencing at the hour of
9:03 a.m. Central Standard Time on Tuesday, January 24,
2023, remotely held via videoconference technology,
before Lynette Marie Nelson, Certified Shorthand
Reporter in and for the State of California.

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APPEARANCES:

For the Petitioner:
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I N D E X

WITNESS: DAVID A. FORSYTH, PH.D.	PAGE
EXAMINATION	
BY MR. BOWSER	5
(NO EXHIBITS OFFERED.)	

1 REMOTE DEPOSITION; TUESDAY, JANUARY 24, 2023, 9:03 A.M.,
2 CENTRAL STANDARD TIME

3 -000-

4 (Witness sworn.)

5 THE WITNESS: I do.

6
7 DAVID A. FORSYTH, Ph.D.,
8 HAVING BEEN DULY SWORN BY THE CERTIFIED SHORTHAND
9 REPORTER, WAS EXAMINED AND TESTIFIED AS FOLLOWS:

10 EXAMINATION

11 BY MR. BOWSER:

12 Q. Good morning, Dr. Forsyth. My name is Jonathan
13 Bowser, and I will be asking you questions today about
14 your declaration in IPR2022-00734, which involves
15 U.S. Patent No. 9,135,737. I represent the patent owner
16 EagleView Technologies, Inc.

17 Can you please state your full name for the
18 record?

19 A. My full name is David Alexander Forsyth.

20 Q. Is there any reason why you would not be able
21 to answer my questions today fully, accurately, and
22 honestly?

23 A. There is no reason.

24 Q. What is your current occupation?

25 A. I'm a professor of computer science at the

1 University of Illinois at Urbana-Champaign.

2 Q. As I mentioned, I will be asking you questions
3 about your declaration. If you don't understand my
4 question, please let me know. If you answer my
5 question, I will assume that you understood my question.
6 Is that understood?

7 A. I understand that.

8 Q. Okay. Your counsel may object to questions
9 throughout this deposition. Unless your counsel
10 instructs you not to answer a specific question, you are
11 required to answer my questions. Is that understood?

12 A. I understand that.

13 Q. Okay. The court reporter will prepare a
14 transcript of this deposition today. To ensure that we
15 obtain a clear record of this deposition, please answer
16 each question with a full verbal response, including yes
17 or no, and that you not answer with verbal grunts like
18 uh-huh or head movements. Is that okay?

19 A. I understand that.

20 Q. Okay. Also to ensure a clear record, I ask
21 that you please let me finish my questions before you
22 provide an answer. I will do the same thing for you.
23 The court reporter may have difficulties accurately
24 recording who is speaking when there is cross talk. Is
25 that okay?

1 A. I understand that. Yeah.

2 Q. During the portion of this deposition where I
3 am asking you questions, you are not permitted to speak
4 with your counsel about the substance of your testimony,
5 including your declaration and deposition. Is that
6 understood?

7 A. I understand that.

8 Q. Okay. At the outset, I plan to take -- I'm
9 sorry, I plan to ask you questions in approximately
10 one-hour segments, and then we can take a ten-minute
11 break after each one-hour segment. We can take a lunch
12 break around 12:00 p.m. Central, if that works for you?

13 A. That works for me.

14 Q. Okay. If you need a break before any of our
15 scheduled breaks, please let me know. Before we take a
16 break, though, I ask that you answer my question before
17 we break just so we can ensure a clean record. Is that
18 okay?

19 A. I understand that. That's fine.

20 Q. All right. Where are you located today?

21 A. I'm currently in Urbana, in Illinois. Do you
22 need the street address?

23 Q. No, no, just generally speaking. All right.
24 Are you at your university location?

25 A. I'm in a room at my house.

1 Q. Okay. Are you in a room with counsel?
2 A. I'm on my own in the room.
3 Q. Okay. Do you have a phone with you?
4 A. No, there's a phone on my desk.
5 Q. Okay.
6 A. I can turn it off if --
7 Q. Do you agree not to use your phone? Sorry. Do
8 you agree not to use your phone during the questioning
9 portion of this deposition today for any reason?
10 A. I agree not to use my phone during the
11 questioning portion. I will -- I should have done this
12 beforehand, but I will turn the audio down so that it
13 won't make a noise.
14 Q. Okay. Thank you.
15 What equipment are you using for this
16 deposition?
17 A. I have a -- an Apple MacBook which is running
18 Zoom and with no other open window. Next to me I have a
19 couple of binders that Mr. Smith and Mr. Darno sent me.
20 Q. We are going to talk about those documents in a
21 bit. So petitioner -- I guess we can talk about it now,
22 but petitioner and patent owner's counsel have agreed
23 that you may use hard copies of the exhibits in this
24 proceeding as long as they're clean versions without any
25 notes, highlighting, or any other markings. Do you have

1 the hard copies of the exhibits mentioned in your
2 declaration?

3 A. I believe so. I received two binders this
4 morning. I haven't checked every page, but those
5 binders are next to me.

6 Q. Okay. Well, if you need any exhibits during
7 the course of the deposition, I can upload it to the
8 Zoom chat window.

9 A. Thank you.

10 Q. Sure. All right. And you do not have any
11 other documents open on your computer; is that right?

12 A. I have no other documents open on my computer.

13 Q. Okay. Do you have any chat windows open where
14 you're communicating with Nearmap's counsel or other
15 representatives of Nearmap?

16 A. I have no chat windows open on my computer.

17 Q. Okay. Who did you meet with to prepare for
18 your deposition today?

19 A. I met with Nearmap's counsel, Mr. Smith,
20 Mr. Darno, Mr. Rozylowiez, and another gentleman whose
21 name I forget, who is also of Nearmap's counsel.

22 Q. Okay. So all just Nearmap's counsel?

23 A. Nearmap's counsel.

24 Q. Were these the counsel at Fish & Richardson,
25 the law firm that you are working with?

1 A. I believe these counsel are working at
2 Fish & Richardson. I'm not aware of them working
3 anywhere else.

4 Q. Approximately how long did you meet with the
5 counsel you just mentioned?

6 A. Is this in respect to preparation for this
7 specific deposition or in general?

8 Q. Yes. Sorry, let me clarify. Approximately how
9 long did you meet with counsel that you identified to
10 prepare for this deposition?

11 A. I don't have a clear recollection in detail. I
12 believe probably a bit more than five hours, certainly
13 less than 50.

14 Q. So somewhere between five and 50?

15 A. I believe that's correct.

16 Q. Is that what you are saying?

17 Okay. It's a pretty large range. But all
18 right. So I want to -- let me back up and strike that.

19 Dr. Forsyth, you provided testimony in
20 connection with IPR2022-00734 which involves U.S. Patent
21 No. 9,135,737; is that correct?

22 A. That's correct.

23 Q. Now, of that binder that you held up, do you
24 have a hard copy of Exhibit 1,003, which is titled
25 Declaration of Dr. David Forsyth in IPR2022-00734?

1 A. I do.

2 Q. Okay. And just for the record, your
3 declaration doesn't say the IPR number, but it does
4 identify the patent number; is that correct?

5 A. I do not see the IPR number on --

6 Q. No?

7 A. -- the front page of the declaration, but I do
8 see the patent number.

9 Q. Okay. Great. Yeah. I agree, it's not there.
10 I just wanted to make sure we are talking about the same
11 declaration. Okay.

12 Is Exhibit 1,003, is that your declaration?

13 A. That's my declaration as it says in -- on
14 page 1, I guess.

15 Q. So if I refer to Exhibit 1,003 as your
16 declaration or the '737 declaration, will you understand
17 that I'm referring to Exhibit 1,003 in IPR2022-00734?

18 A. I believe that's correct. If I'm confused, I
19 will ask for clarification.

20 Q. Okay. Perfect. All right. Can you please
21 turn to page No. 71 of your declaration?

22 A. Seventy-one? I'm at page 71.

23 Q. Okay. Is that your signature on page 71?

24 A. I'm afraid so, yes.

25 Q. And did you sign your declaration on March 21,

1 2022?

2 A. I believe I dated it correctly with the date on
3 which I signed it. I have no exact memory of the date
4 but the date recorded here -- the day on which I signed
5 is the date that I would have written down.

6 Q. So you have no reason to believe that you
7 signed it on another day?

8 A. I have no reason to believe I signed it on
9 another day.

10 Q. Do you recall approximately how much time you
11 spent on preparing your declaration?

12 A. Only vaguely. I can --

13 Q. Can you give me a ballpark?

14 A. I believe it was more than ten hours. I don't
15 believe it extended as long as 100 hours.

16 Q. Okay. So sometime between ten and 100 hours.
17 Do you recall approximately when you began
18 preparing your declaration in terms of the date?

19 A. I do not.

20 Q. Did anyone else besides petitioner's counsel
21 help you prepare your declaration?

22 A. Did anyone else besides petitioner's counsel?
23 No one else besides petitioner's counsel.

24 Q. So you are saying that you didn't have students
25 or other colleagues at the university help you?

1 A. Certainly not.

2 Q. Okay. And did you prepare the first draft of
3 your declaration?

4 A. Did I prepare the first draft? I honestly
5 don't recall but I don't believe I prepared all of the
6 first draft.

7 Q. Do you recall which portions of the draft that
8 you prepared?

9 A. No. Although I'm confident that I prepared the
10 material on pages 1 through 5, paragraphs 1 through 11
11 myself in the first draft.

12 Q. Okay. And paragraphs 1 through 11 are general
13 background information about you; is that right?

14 A. That's correct.

15 Q. Okay. And is it -- strike that.

16 So you're telling me then that it's likely that
17 the rest of the declaration was prepared by counsel? At
18 least the first draft?

19 A. No, I believe I said that I didn't recall which
20 bits I prepared and which bits counsel prepared. There
21 are certainly sections that would have been prepared by
22 counsel and sections that I would have prepared.

23 Q. All right. Have you been deposed before?

24 A. I have been deposed before.

25 Q. Do you recall how many times?

1 A. Not with any clarity, but it's certainly more
2 than five times.

3 Q. More than five.

4 Have you ever been deposed in connection with
5 an IPR proceeding? IPR stands for inter partes review.

6 A. I believe I have, yes.

7 Q. Can I have you please turn to paragraph 11 of
8 your declaration?

9 A. Paragraph 11. I see paragraph 11.

10 Q. It's on page 5.

11 A. On page 5, yes, that's correct.

12 Q. Okay. And in that paragraph, you have
13 identified four patent proceedings where you testified;
14 is that correct?

15 A. That's correct. Four proceedings -- one, two,
16 three, four. I believe that's correct.

17 Q. And in those proceedings, did you represent --
18 well, strike that.

19 In the first proceeding where it says
20 IPR2016-00806, do you see that?

21 A. Yes.

22 Q. Did you represent the petitioner or the patent
23 owner in that proceeding?

24 A. I'm afraid I don't recall. I would have to
25 look at my records.

1 Q. Okay. Do you recall whether you represented
2 the petitioner or the patent owner in the second IPR
3 proceeding there, IPR2016-01243?

4 A. I do not recall, but I believe the -- whether I
5 was petitioner or patent owner would be the same for
6 each of the first three. The patents were tied up with
7 each other in some way.

8 Q. So you represented the petitioner in the first
9 three proceedings; is that right?

10 A. No, I don't recall whether I represented
11 petitioner or patent owner. But the -- the one I
12 represented would be the same for the first three
13 proceedings.

14 Q. So you are saying that you represented the same
15 party for those three proceedings.

16 A. I represented -- well, I believe it was the
17 same party. There was -- I recall some dispute amongst
18 the parties about who owned who at some point, but I
19 didn't keep much track -- track of that.

20 Q. Okay. And your testimony was just on the
21 patent issues, not about the corporate issues; correct?

22 A. Correct. I'm a technical expert, not a
23 corporate expert.

24 Q. Okay. And the last proceeding there, you
25 identified, the Kewazinga, if I pronounced that

1 correctly, versus Microsoft, do you recall who you
2 represented in that particular case?

3 A. I -- let's see. So I believe Kewazinga was
4 asserting a patent against Microsoft and I was
5 representing Microsoft. So I would be representing
6 petitioner, but I don't believe it's an IPR.

7 Q. No. I see it identified as a district Court
8 case in the Southern District of New York; is that
9 correct?

10 A. I believe that's correct.

11 Q. Can I have you please turn to page 74 of your
12 declaration where it starts with consulting activities?
13 Let me know when you get there, please.

14 A. Yes. Seventy-four, I'm at page 74.

15 Q. All right. On this page, can I ask you about a
16 couple of your prior experiences here including No. 19?

17 A. No. 19.

18 Q. Do you see where it says that you were a
19 consultant for the law firm of Oblon in 2021?

20 A. I do.

21 Q. And do you see where it says EagleView versus
22 Nearmap?

23 A. I do.

24 Q. And it also says that you gave advice on some
25 prior art in 2021. Did I read that correctly?

1 A. It says advice on some prior art, 2021.

2 Q. Did your consultancy role here identified in
3 No. 19, did that involve the '737 patent?

4 A. I do not recall. I would have to look at my
5 records. I believe it was a different patent, but I'm
6 not certain.

7 Q. Do you recall if there were more than one
8 patent in your consultancy role identified in No. 19?

9 A. I believe there were three, but, again, my
10 memory is -- this was two years ago.

11 Q. Are you aware of the Patent Trial and Appeal
12 Board often abbreviated as PTAB or U.S. District Courts
13 ever striking your testimony?

14 A. I'm not aware of either PTAB or district courts
15 striking my testimony.

16 Q. I understand that you are serving as an expert
17 witness for five pending IPR proceedings between Nearmap
18 and either Pictometry International Corp or Nearmap
19 versus EagleView Technologies. Is that your
20 recollection?

21 A. Five, I believe that's correct.

22 Q. Okay. Those IPRs are currently pending; is
23 that right?

24 A. I think IPRs have been instituted for five
25 patents, including '737.

1 Q. Okay. And you are serving as the expert
2 witness for the petitioner in each of those cases; is
3 that right?

4 A. I'm certainly serving as an expert witness for
5 the petitioner. They may have others I'm not aware of.

6 Q. In your consultancy role identified in No. 19
7 on page 74, did you serve as an expert witness?

8 A. I did not. I do not -- well, I suppose -- did
9 I serve as an expert witness? I did not prepare a
10 declaration. I did not -- or I have no recall of
11 preparing a declaration. I have no recall of -- I
12 certainly was not deposed. I believe what I did was
13 provide advice in a variety of Zoom and phone calls.

14 Q. And based on the description here in No. 19,
15 would that advice pertain to the prior art with respect
16 to EagleView patents?

17 A. Yes, that's correct.

18 Q. And do you recall if the prior art that you
19 discussed for No. 19 when you were a consultant for the
20 law firm of Oblon, do you recall if you discussed any of
21 the same prior art that is at issue in your declaration?

22 A. In the declaration for '737, I'm sure we must
23 have talked about Heller, but I'm not sure if we talked
24 about Heller in the context of '737. So I believe the
25 answer is, yes, we discussed some of the prior art.

1 Q. Some of the prior art you discussed --
2 A. In the current -- that is in the current
3 declaration.
4 Q. Yes. Okay. Thank you. Are you aware that
5 there is currently pending litigation between petitioner
6 Nearmap and patent owner EagleView in the District Court
7 for Utah that involves the '737 patent?
8 A. Vaguely. To the extent that it's mentioned
9 somewhere in the institution decision.
10 Q. Are you serving as an expert witness for
11 Nearmap in the district court litigation?
12 A. I don't believe I've been engaged to do that,
13 but I'd have to look at the terms of the letter. I
14 don't believe I've discussed district court litigation
15 with the counsel.
16 Q. So can we turn to paragraph 3 of your
17 declaration, please.
18 A. Paragraph 3.
19 Q. All right. Let me know when you get there.
20 A. I'm at paragraph 3.
21 Q. Paragraph 3, the first sentence says: I have
22 studied computer vision since my final year as an
23 undergraduate in 1994.
24 And the sentence continues; is that correct?
25 A. That's correct.

1 Q. Can you turn to paragraph 4, please.

2 A. I am at paragraph 4.

3 Q. Do you see the second sentence, it says: I was
4 or will be program cochair for the Institute of
5 Electrical and Electronics Engineers, IEEE, conference
6 on computer vision?

7 A. I see that sentence.

8 Q. And also in paragraph 5, if you go to page 4 of
9 your declaration, please.

10 A. I'm at page 4, paragraph 5.

11 Q. Do you see on the third line at the top of
12 page 4, in there it says: European conference in
13 computer vision.

14 Did I read that correctly?

15 A. Yes, that's correct.

16 Q. And in paragraph 6, it says: My work is
17 extensively cited in computer vision literature; is that
18 correct?

19 A. That's correct.

20 Q. And the last paragraph I want to talk about is
21 here is paragraph 8. And the first sentence there says:
22 I have made extensive contributions to computer vision
23 education; is that correct?

24 A. That's correct.

25 Q. What is computer vision?

1 A. That's a complicated question. Do you want a
2 long answer or a short answer or --

3 Q. Whatever answer you feel comfortable giving.

4 A. Okay. So let's start with a summary answer,
5 and if you feel you need it expanded, we can do that.
6 It's the study of methods to interpret and exploit
7 information in pictures, video, and lidar sensors and
8 methods to create pictures, video, and lidar sensor
9 results with prescribed properties. That's a broad
10 summary of what people do. I have tried to be as
11 inclusive as possible, but it is a very big discipline
12 right now.

13 Q. Thank you. Do you consider yourself an expert
14 in computer vision?

15 A. I do.

16 Q. Can you please turn to paragraph 16.

17 A. Paragraph 16. I'm at paragraph 16.

18 Q. And do you see where it's under the heading
19 Level of Ordinary Skill in the Art?

20 A. I do.

21 Q. Can you -- strike that.

22 Do you see in the one, two, three, fourth line
23 down, it says that a POSITA would have at least two
24 years of experience related to computerized image
25 analysis and three-dimensional modeling. Did I read

1 that correctly?

2 A. You read that correctly.

3 Q. Is it your understanding that the field of the
4 invention for the '737 patent is computerized image
5 analysis and three-dimensional modeling?

6 A. The scope of the matter disclosed in the '737
7 patent certainly falls within computerized image
8 analysis and three-dimensional modeling.

9 Q. So your definition for a POSITA is computerized
10 image analysis and three-dimensional modeling; correct?

11 A. No. My definition is they would have had a
12 bachelor's degree in an academic area emphasizing the
13 design of electrical computer or software technologies
14 or a similar discipline and at least two years of
15 experience related to computerized image analysis and
16 three-dimensional modeling.

17 Q. So what would you define essentially as the
18 field of invention for the '737 patent?

19 MR. SMITH: Objection. Form.

20 THE WITNESS: What would I define as the field
21 of invention for '737? Could you refer me to any
22 statement in the declaration on that? I don't believe I
23 defined it in my declaration.

24 BY MR. BOWSER:

25 Q. Well, I'm asking about the experience that a

1 POSITA would have; right? And so we are in paragraph 16
2 and it says at least two years of experience related to
3 computerized image analysis and three-dimensional
4 modeling; is that right?

5 A. That's what's paragraph 16 says, yes, that's
6 correct.

7 Q. Okay. So a person with that -- I'm sorry,
8 strike that.

9 So a POSITA with that experience would qualify
10 as someone who can understand the technology in the '737
11 patent; is that right?

12 A. I believe a POSITA with that experience could
13 understand the technology of '737, yes.

14 Q. So do you recall that we talked about computer
15 vision before?

16 A. I do.

17 Q. Okay. Is the phrase "computerized image
18 analysis and three-dimensional modeling," is that
19 similar to computer vision?

20 A. They are -- these are components of computer
21 vision, much, but not all, of computer vision studies
22 either computerized image analysis. And there's a large
23 component of computer vision that studies
24 three-dimensional modeling, but there are other aspects
25 of computer vision as well.

1 Q. So would you say then that computer image
2 analysis and three-dimensional modeling is a subset of
3 computer vision?

4 A. Computer analysis and three-dimensional --
5 with -- I would generally agree with that statement with
6 one qualifier; that there are aspects of
7 three-dimensional modeling that are not usually studied
8 in computer vision.

9 Q. And what aspects are not typically studied in
10 computer vision?

11 A. These would be things like the structure of
12 intersection curves for particular kinds of surface
13 model, user interfaces for building curved surfaces,
14 some kinds of interactive surface painting technique.
15 Those kinds of activity are usually seen as modeling
16 activities distinct from computer vision.

17 Q. Thank you. Can you please turn to paragraph 12
18 of your declaration. It's on page 6.

19 A. Paragraph 12. I'm at paragraph 12.

20 Q. Can you please read paragraph 12 for the
21 record.

22 A. Okay. Paragraph 12 reads: In writing this
23 declaration, I have considered the following: My own
24 knowledge and experience, including my work experience
25 in the field of communications networks -- I believe

1 that must be -- there may be a typographical error
2 there.

3 My experience in teaching those subjects and my
4 experience in working with others involved in those
5 fields. In addition, I have analyzed the following
6 publications and materials, in addition to other
7 materials I cite in my declaration.

8 And then there is a list of materials. Do you
9 want me to read those materials?

10 Q. No. Sorry, just that introductory paragraph.

11 So I just want to clarify then that the use of
12 the word "communications networks" in your declaration
13 there, you say that is a typographical error?

14 A. I believe that's a typographical error that I
15 missed.

16 Q. Okay. When you say you missed it, is that
17 because you did not type that -- you did not type that
18 paragraph?

19 A. No, because I, on reading and rereading the
20 document, appear not to have noticed that. There's
21 another typographical error on page 49 where the word
22 "and" substitutes for "an."

23 Q. Okay. Do you think that you would have written
24 the words "communications network" if you had prepared
25 paragraph 12?

1 A. I'm quite unable to speculate. I have written
2 enough books and papers to be aware that it's quite easy
3 to make embarrassing typographical errors on your own.
4 Q. But do you consider yourself an expert in the
5 field of communications networks?
6 A. I do not consider myself an expert in the field
7 of communications networks.
8 Q. Do you have experience with roof repair?
9 A. I believe on two occasions, I have paid someone
10 to repair my roof.
11 Q. And do you have experience with roof
12 construction?
13 A. I'm not conscious of any experience in roof
14 construction.
15 Q. Do you have experience with preparing a report
16 to either repair or construct a roof?
17 A. I do not.
18 Q. Are you aware of what a roof pitch is?
19 A. I have a reasonable notion of the term.
20 Q. Are you aware of how that term is used in the
21 context of roof repair construction?
22 A. If I wanted to be very accurate, I would have
23 to look it up.
24 Q. Are you familiar with the term of slope --
25 A. Again, I have --

1 Q. -- in connection with a roof? Sorry. Let me
2 strike that.

3 Are you familiar with the term "slope" in
4 connection with roof construction or repair?

5 MR. SMITH: Objection. Scope, relevance.

6 THE WITNESS: I have read the term. It appears
7 in '737, Claim 1, I think -- 1.5. I have a reasonable
8 grasp of the meaning of the term, but if I needed to be
9 very accurate, I would have to look it up.

10 BY MR. BOWSER:

11 Q. Can we go, please, to Column 17, line 11 of the
12 '737 patent.

13 A. So --

14 Q. Let me back up. Sorry. Yeah. I apologize
15 here.

16 So I'm going to be discussing Exhibit 1,001,
17 which is U.S. Patent 9,135,737. If I refer to
18 Exhibit 1,001 as the '737 patent, will you -- will you
19 understand that I'm referring to Exhibit 1 in this
20 proceeding?

21 A. I expect that I will, and if I'm confused, I
22 will ask for clarification.

23 Q. And can you please refer to Column 17 of the
24 '737 patent.

25 A. I am at Column 17.

1 Q. Do you see in line 11, it uses the word slope?
2 A. Slopes.
3 Q. Slopes, plural?
4 A. Slopes of sections of the roof. I see that.
5 Q. Okay. Can you please refer to Column 1 of the
6 '737 patent.
7 A. Column 1 of '737? I'm at Column 1.
8 Q. Okay. Can you please read the sentence that
9 begins at Column 1, line 55.
10 A. Column 1, line 55. The sentence is: These and
11 other objects are met by the systems and methods
12 disclosed herein that determine and provide roof
13 measurement information about the sizes, dimensions,
14 slopes, and orientations of the roof sections of a
15 building roof.
16 Q. Okay. So that sentence mentions the word
17 "slopes"; is that correct?
18 A. That sentence mentions the word "slopes."
19 Q. And can you please turn to Column 2, line 55 of
20 the '737 patent.
21 A. Column 2, line 55.
22 Q. Yes. And can you please read that sentence.
23 A. The roof measurement information may include
24 measurements, such as lengths of the edges of sections
25 of the roof, pitches of sections of the roof, areas of

1 sections of the roof, et cetera.

2 Q. So the '737 patent discusses the words "slopes"
3 and "pitches"; is that correct?

4 A. That's correct.

5 Q. Did you read the '737 patent in its entirety?

6 A. Yes.

7 Q. And do you understand the difference between a
8 pitch and a slope?

9 MR. SMITH: Objection. Scope, relevance.

10 THE WITNESS: I think the correct answer is I
11 understand it vaguely and sufficiently to understand
12 what the patent is about, but I would have difficulty
13 giving precise definitions or accurate definitions and
14 might need to look things up.

15 BY MR. BOWSER:

16 Q. Do you consider a pitch different -- strike
17 that.

18 Do you consider that a slope is different than
19 a pitch?

20 MR. SMITH: Objection. Scope, relevance.

21 THE WITNESS: Do I consider a slope is
22 different than a pitch? The -- I think to give an
23 accurate answer to that, I would need to look up
24 precisely how roofing technology is used. They're
25 generally referring to about the same thing, but they

1 may not be exactly the same.

2 BY MR. BOWSER:

3 Q. When you reviewed the '737 patent, did you look
4 up terms that you didn't know?

5 A. To the extent that I felt the need to look up
6 the terms to interpret the claims of the patent or the
7 preamble, the specification.

8 Q. Do you recall if you looked up the word
9 "pitch"?

10 MR. SMITH: Objection. Scope, relevance.

11 THE WITNESS: I do not recall.

12 BY MR. BOWSER:

13 Q. Do you recall if you looked up the word
14 "slope"?

15 MR. SMITH: Same objection.

16 THE WITNESS: I do not recall.

17 BY MR. BOWSER:

18 Q. Do you recall seeing these terms, slope and
19 pitch, in the '737 patent when you reviewed the '737
20 patent?

21 A. Yes. They occur in a variety of places.

22 Q. So let's stay on paragraph 12 -- or sorry,
23 strike that.

24 Let's refer back to paragraph 12 of your
25 declaration, please.

1 A. Paragraph 12, declaration, I'm back at
2 paragraph 12.

3 Q. And in paragraph 12 in the first -- in the
4 introductory paragraph there, you say that you analyzed
5 the following publications and materials in addition to
6 other materials I cite in my declaration; is that
7 correct?

8 A. That's correct.

9 Q. Did you review any other documents that are not
10 cited in your declaration?

11 A. Let's see.

12 MR. SMITH: Objection. Form.

13 THE WITNESS: Did I review any other documents
14 that are not cited in the declaration? I believe the
15 answer has to be almost certainly yes but did not feel
16 those documents were sufficiently relevant to be
17 mentioned or cited.

18 BY MR. BOWSER:

19 Q. So let me clarify. And I apologize, my
20 question was not very precise.

21 When you were preparing your declaration for
22 the '737 patent here, did you review any other document
23 in connection with your preparation of the declaration
24 for the '737 patent that is not cited in paragraph 12?

25 A. I have no clear recollection either way. I

1 think that very likely I would have looked at other
2 documents and dismissed them as not being relevant.

3 Q. So then would it be accurate to say that the
4 reason a document is not cited in your declaration is
5 because you did -- you determined that it wasn't
6 relevant?

7 A. Well, because I hadn't seen it.

8 Q. Okay. Do you have hard copies of the documents
9 identified in paragraph 12?

10 A. I'm -- well, the binder arrived this morning,
11 so I'm not absolutely certain what's in the binder.
12 The -- I'm confident I have hard copies of '737, the
13 file history for '737, Heller, Quam, Deaton, I think
14 PTAB's final written decision, but I'm not sure if the
15 binder contains Nearmap 1030 or 1031. I guess I could
16 look at the binder if you want.

17 Q. So just for the transcript purposes, I'm going
18 to identify specific exhibit numbers, and I'm going to
19 identify certain shorthand terms. Okay? So if I refer
20 to Exhibit 1,003, I'm referring to your declaration
21 in -- sorry, for the '737 patent. Is that understood?

22 A. I understand.

23 Q. Okay. And if I refer to the Heller document,
24 I'm referring to Exhibit 1,004 by Heller, et al., titled
25 The Site Model Construction Component of the Radius Test

1 Bed System; is that correct?

2 A. I understand.

3 Q. Okay. And if I refer to Quam, you'll

4 understand I'm referring to Exhibit 1,005 by Quam,

5 et al., which is titled The Radius Common Development

6 Environment?

7 A. I understand.

8 Q. And if I refer to Deaton, you will understand

9 that I'm referring to Exhibit 1,006, which is

10 U.S. Patent Publication No. 2006/023-5611?

11 A. I understand.

12 Q. Can we please turn to paragraph 17 of your

13 declaration.

14 A. Paragraph 17. I'm at paragraph 17.

15 Q. Okay. Do you see that there is a case citation

16 there of Phillips versus AWH Corporation and it's a

17 decision of the federal circuit?

18 A. I see that.

19 Q. Okay. And do you see also at the bottom of

20 page 17 you have another citation to Wellman, Inc.,

21 versus Eastman Chemical Companies, and it's another

22 federal circuit decision?

23 A. You mean at the bottom of paragraph 17?

24 Q. Yes, at the bottom of paragraph 17.

25 A. I see that.

1 Q. Do you see that? Okay.

2 And this is just another citation nearby so I'm
3 going to ask you about this. In paragraph 19, do you
4 see another federal circuit decision there that you have
5 cited in your declaration, In re DiStefano?

6 A. I see another citation, In re DiStefano.

7 Q. Okay. Did you read the federal circuit cases
8 that you cited in your declaration?

9 MR. SMITH: Objection. Form.

10 THE WITNESS: Did I read the federal circuit
11 cases cited in my declaration? No. I looked at the
12 Phillips standard because I couldn't remember what it
13 was. The -- I understand -- I have seen the phrase
14 claim terms need only to be construed to the extent
15 necessary to resolve the controversy used on multiple
16 occasions. I'm no legal expert so I'm unable to analyze
17 DiStefano. The point was explained to me.

18 BY MR. BOWSER:

19 Q. So is it the case that counsel gave those cases
20 to you?

21 A. Counsel informed me of those cases. As I say
22 in paragraph 17, I have been informed that. And in
23 paragraph 19, it is my understanding that.

24 Q. Did counsel provide you with the
25 characterizations of those decisions?

1 A. I believe so. I certainly didn't write them
2 myself.

3 Q. So this is a similar issue. Can you please
4 turn to paragraph 111.

5 A. Paragraph 111. I'm at paragraph 111.

6 Q. Okay. Do you see at the top of paragraph 11,
7 you cite to PTAB decision called Stryker versus KFX,
8 IPR2019-00817 paper, it doesn't say, but there's a PTAB
9 citation. Do you see that?

10 A. I see that.

11 Q. Do you see in paragraph 111 there's any
12 qualification that you have been informed or you
13 understand?

14 A. There is no such qualification. That is a bank
15 error. The 111 should read, I am -- I have been
16 informed that the board.

17 Q. So then paragraph 111 is a characterization of
18 what counsel instructed you about the Stryker versus KFX
19 case; is that correct?

20 A. Paragraph 111 is -- yes, it is a summary of
21 what I have been informed by counsel about the Stryker
22 case.

23 Q. Can we go to paragraph 114 as well?

24 A. 114. I'm at paragraph 114.

25 Q. Okay. And do you also see there in that

1 paragraph where you cite the PTAB case Lectrosonics,
2 Inc., versus Zaxcom, IPR2018-00129?

3 A. I see that.

4 Q. And just to be clear here, this was another
5 instance where counsel provided you with the citation
6 and the propositions for that case?

7 A. I believe the paragraph reads correctly, I have
8 been informed by counsel that . . .

9 Q. Okay. Are you an attorney?

10 A. I am not.

11 Q. Okay. So when counsel sent these federal
12 circuit and PTAB decisions to you that you identified in
13 your declaration, did they explain the relevant portions
14 of those decisions to you?

15 MR. SMITH: Objection. Form.

16 THE WITNESS: Are we talking -- hang on. Let's
17 be careful. Which PTAB decisions are we talking about?

18 BY MR. BOWSER:

19 Q. So I'm talking about the federal circuit and
20 the PTAB decisions. Let's go back to paragraph 17,
21 please.

22 A. Seventeen. I'm at paragraph 17.

23 Q. Do you see the Phillips citation and the
24 Wellman citation in paragraph 17?

25 A. I see the Phillips citation and the Wellman

1 citation.

2 Q. And then the In re DiStefano citation in
3 paragraph 19, do you see that?

4 A. I see that.

5 Q. Okay. And you recall also that we talked about
6 two PTAB decisions in paragraphs 111 and 114?

7 A. 111 and 114. 111, you are referring to the
8 Stryker versus KFX decision in 111. And in 114 you are
9 referring to Lectrosonics versus Zaxcom.

10 Q. And just to be clear here, I want to understand
11 then that counsel provided you with those citations and
12 the quotations; is that correct?

13 A. Counsel provided me with those citations and
14 the quotations, and my understanding of what's in that
15 material is what's been explained to me by counsel.

16 Q. Okay. And did you read any portion of those
17 cited federal circuit and PTAB decisions that are not
18 cited in your declaration?

19 MR. SMITH: Objection. Form.

20 THE WITNESS: I looked up the Phillips standard
21 because I had forgotten what it was and so must have
22 read some portion in the website that described it. The
23 reason I'm being cautious here is there are a couple of
24 PTAB decisions described in paragraph 12 about '737 that
25 I have read in some detail, but I have not read the

1 Stryker versus somebody or other or Wellman versus
2 Eastman.

3 BY MR. BOWSER:

4 Q. So other than the Phillips case, you didn't
5 read any of the federal circuit or PTAB decisions that
6 are cited in your declaration that don't specifically
7 deal with the '737 patent; is that correct?

8 MR. SMITH: Objection. Form.

9 THE WITNESS: I certainly have not read the
10 PTAB decisions of paragraph 111 and 114 that we were
11 talking about. Generally, I don't read PTAB decisions
12 unless they're directly relevant. I have no memory of
13 reading PTAB decisions other than the ones cited in
14 paragraph 12. And there is a patent owner's response
15 petition and a final written decision in 12. Those I
16 did read in some detail.

17 BY MR. BOWSER:

18 Q. Okay. Of the federal circuit and PTAB
19 decisions that are not specifically addressing the '737
20 patent, that's what I would like to talk about. Are
21 those federal circuit and PTAB decisions, the ones not
22 dealing with the '737 patent, was it your decision to
23 include those citations in the declaration?

24 MR. SMITH: Objection. Form.

25 THE WITNESS: Was it my decision to include

1 those citations? The document is a document I have read
2 repeatedly and very carefully. The citations appeared
3 to be correct. The content of the citations was
4 consistent with what the attorneys informed me they
5 meant. Was it my decision to include? Nothing appears
6 in this document without my approval. So at some level,
7 it must have been.

8 BY MR. BOWSER:

9 Q. So do you recall how you decided to approve the
10 inclusion of the citations in your declaration?

11 A. They appear to be citations to matters that I
12 had seen discussed before and that were described to me
13 by counsel and where there was no particular reason to
14 believe that counsel would mislead me.

15 Q. So just to confirm, you didn't individually
16 look up those cases and read them for yourself?

17 A. I did not individually look up those cases and
18 read them for myself.

19 Q. Okay. And so you assumed that counsel was not
20 misleading you and that's the reason why you decided to
21 accept those citations; is that correct?

22 MR. SMITH: Objection. Form.

23 THE WITNESS: I had no reason to believe that
24 counsel was misleading me. The citations appeared to be
25 correct, at least in the case of Phillips. I've seen it

1 used before. So I had no reason to object to inserting
2 those cases.

3 MR. BOWSER: Okay. How about we take a
4 ten-minute break. Lynette, we will be back on the
5 record here at -- let's see, it's 10:59, so let's call
6 it 11:00, 11:10 Eastern, 10:00 a.m. Eastern?

7 MR. SMITH: Hey, Jonathan, would you mind if we
8 took a -- I apologize, mind if we took a 15-minute
9 break? I actually need to run something up to my son
10 who forgot it at school, extra five minutes.

11 MR. BOWSER: Of course.

12 MR. SMITH: If necessary, we can shorten
13 another break. I really apologize.

14 THE STENOGRAPHER: Would you like to be off the
15 record?

16 MR. SMITH: Yeah, let's go off the record.

17 (A recess was taken.)

18 MR. BOWSER: Go back on the record.

19 BY MR. BOWSER:

20 Q. Dr. Forsyth, welcome back.

21 A. Thank you.

22 Q. Did you speak with counsel at all during the
23 break?

24 A. I did not.

25 Q. Great. I want to turn to the '737 patent,

1 which is Exhibit 1,001. Can you please access that?

2 A. I'm at '737.

3 Q. Okay. Actually, let me start real quick

4 here -- sorry. Let me turn to paragraph 13 of your

5 declaration. Sorry for jumping around here, but turn to

6 paragraph 13 of your declaration. Let me know when you

7 get there.

8 A. Thirteen, I'm at paragraph 13.

9 Q. In paragraph 13, that's where you start talking

10 about the '737 patent; is that correct?

11 A. That's correct.

12 Q. And did you read the '737 patent in its

13 entirety?

14 A. I did.

15 Q. So would you be comfortable discussing the

16 features of the '737 patent today?

17 A. Yes, I would.

18 Q. Okay. And if you need any time to review a

19 portion of the '737 patent, just so that you're able to

20 testify accurately, let me know. I don't mind, you

21 know, taking breaks if you want to just take a pause.

22 A. Thank you. I will say so.

23 Q. Okay. Sure.

24 So can you please go to Column 2, lines 43 to

25 64 of the '737 patent.

1 A. Column 2, lines --
2 Q. Starting at line 43.
3 A. Forty-three, embodiments.
4 Q. Okay. Right. And do you see that this
5 paragraph is the first paragraph under the detailed
6 description section of the '737 patent?
7 A. I do.
8 Q. And can you please read for the record the
9 second sentence in this paragraph starting at line 46.
10 A. The sentence beginning "example embodiments"?
11 Q. Correct.
12 A. Example embodiments provide a roof estimation
13 system, parens, open quotes, RES, closed quotes, closed
14 parens, that is operable to provide a roof estimate
15 report for a specified building, comma, based on one or
16 more aerial images of the building.
17 Q. And can you please read the sentence that
18 begins in Column 2, line 58. Sorry. Let me rephrase.
19 Can you please read the sentence or sentences
20 from lines 58 to 64 in Column 2.
21 A. So starting at "the model of the roof"?
22 Q. Correct.
23 A. They read: The model of the roof and/or the
24 roof measurement information is then used to generate a
25 roof estimate report, full stop. The roof estimate

1 report includes one or more line drawings of the roof of
2 the building, comma, which are annotated with
3 information about the roof, comma, such as lengths of
4 the edges of sections of the roof, comma, pitches of
5 sections of the roof, comma, areas of sections of the
6 roof, et cetera, full stop.

7 Thank you. What is your understanding of the
8 term "roof estimation system" as used in the '737
9 patent?

10 MR. SMITH: Objection. Form.

11 THE WITNESS: What is my understanding of roof
12 estimation system? So, generally, I believe in my
13 declaration, I said that claim terms or that I had been
14 informed that claim terms should be construed according
15 to the Phillips standard, which is something like
16 ordinary and customary to a POSITA at the time.

17 And then I discussed independently roof
18 estimate report and transmitting roof measurement
19 information. So what roof estimation system means would
20 be what it meant to a person of ordinary skill in the
21 art at the time, which would be -- and, in fact, the
22 patent says it's a system -- or, sorry, roof estimation
23 system is operable to provide a roof estimate report for
24 a specified building based on one or more aerial images
25 of the building.

1 BY MR. BOWSER:

2 Q. Do you consider yourself a POSITA for the '737

3 patent?

4 A. Do I -- yes, I do.

5 Q. So then would you be able to construe the term

6 "roof estimate system" as a POSITA?

7 MR. SMITH: Objection. Scope, relevance.

8 THE WITNESS: I would be able to construe and

9 understand the term, but providing a precise and

10 accurate definition of the term might be difficult.

11 BY MR. BOWSER:

12 Q. So can we turn to paragraph 14 of your

13 declaration, please.

14 A. Paragraph 14.

15 Q. Okay. Let me know when you're there, please.

16 A. I'm at paragraph 14.

17 Q. Okay. And do you see in paragraph 14 that you

18 reproduced the language of Claim 1 with added limitation

19 numbers 1.0 to 1.5?

20 A. I see that.

21 Q. Okay. And for the record, can you please read

22 limitation 1.0.

23 A. Limitation 1.0. 1.0 reads: A

24 computer-implemented method in a roof estimate report

25 system including at least one processor and a memory

1 coupled to the at least one processor, comma, the method
2 comprising, colon.

3 Q. So do you see the words "roof estimate report
4 system" in Limitation 1.0?

5 A. I do.

6 Q. What is your understanding of the meaning of a
7 roof estimate report system as recited in
8 Limitation 1.0?

9 A. What is my understanding of a roof estimate
10 report system as recited in Claim 1.0? So the -- again,
11 in the paragraph on construction, it doesn't fall under
12 generating a report, and it doesn't fall under
13 transmitting. So it falls under the Phillips standard.
14 I would understand that to mean a system that reported
15 roof estimates.

16 Q. So can we go back to Column 2, lines 46 to 49
17 of the '737 patent, please.

18 A. Column 2, 46 to 49.

19 Q. Right. Can you please read that again,
20 "example embodiments" that sentence.

21 A. Example embodiments provide a roof estimation
22 system, open parens, double inverted commas, RES, closed
23 inverted commas, closed parens, that is operable to
24 provide a roof estimate report for a specified building,
25 comma, based on one or more aerial images of the

1 building, full stop.

2 Q. So when you construed Limitation 1.0, did you
3 understand the term "roof estimate report system" in
4 Limitation 1.0 as corresponding to that description that
5 you just read in Column 2, lines 46 to 49 --

6 MR. SMITH: Objection. Form, argumentative.

7 BY MR. BOWSER:

8 Q. -- of the '737 patent?

9 MR. SMITH: Objection. Form, argumentative.

10 THE WITNESS: So Claim 1 refers to a roof
11 estimate report system. This sentence refers to a roof
12 estimation system. Because different terms are being
13 used, it's reasonable to conclude that there is some
14 difference between the objects. The roof estimate
15 report system in Claim 1 appears to be a roof estimation
16 system that is operable to provide a roof estimate
17 report.

18 BY MR. BOWSER:

19 Q. So I just want to be clear here. When you
20 construed -- or strike that.

21 I just want to be clear here that when you
22 analyzed Limitation 1.0, you took an opinion on what a
23 roof estimate report system is; correct?

24 MR. SMITH: Objection. Form.

25 THE WITNESS: So I believe any terms that are

1 not specifically referred to in my report, the two
2 questions, one of them to do with printed matter and the
3 other to do with transmission, I construed under the
4 Phillips standard, which is what they would have meant
5 to a POSITA at the time.

6 BY MR. BOWSER:

7 Q. So just to be clear then, you are giving the
8 term "roof estimate report system" its plain and
9 ordinary meaning under the Phillips standard; is that
10 correct?

11 A. I believe the Phillips standard is ordinary and
12 customary to a POSITA at the time.

13 Q. Okay. Thank you.

14 So can we turn next to -- sorry, strike that.

15 Let's go back to Limitation 1.0. Okay?

16 A. In the --

17 Q. Sorry?

18 A. In my declaration or in the patent?

19 Q. Paragraph 14 of your declaration. And just to
20 be clear here, when I refer to limitation numbers
21 throughout your deposition, I'm going to be referring to
22 the limitation numbers as set forth in your declaration.
23 Is that understood?

24 A. I understand that.

25 Q. Okay. So when I refer to Limitation 1.0 of

1 Claim 1, I'm talking about Limitation 1.0 as presented
2 in your declaration.

3 A. Understood.

4 Q. Okay. So we read Limitation 1.0 and thank you
5 for that. Do you see the term "roof estimate report
6 system" in Limitation 1.0?

7 A. Do I see the term "roof estimate report system"
8 in Claim -- in Limitation 1.0? Yes, I do.

9 Q. Okay. Can we turn next to Limitation 1.1.

10 A. Limitation 1.1.

11 Q. Okay. And in Limitation 1.1, do you see the
12 words "roof estimate report system"?

13 A. I do.

14 Q. Okay. Please turn next to Limitation 1.2,
15 which is on page 9 of your declaration.

16 A. I see that.

17 Q. And in Limitation 1.2, do you see the words
18 "the roof estimate report system"?

19 A. I do.

20 Q. And in Limitation 1.3, do you see the words
21 "the roof estimate report system"?

22 A. I do.

23 Q. And in Limitation 1.4, do you see the term "the
24 roof estimate report system"?

25 A. I do.

1 Q. So you would agree then that the term "roof
2 estimate report system" is recited in Limitations 1.0 to
3 1.4; correct?

4 A. That term appears in all of those limitations.

5 Q. Okay. Is it your understanding that the roof
6 estimate report system performs all of the limitations
7 of Claim 1, including 1.0 to 1.5?

8 A. The roof estimate report system, the method
9 comprising, I believe 1.5 we would need to be careful
10 about. In 1.1, the processor display of the roof
11 estimate report system displays. In 1.2, the processor
12 of the systems displays. In 1.3, the process -- the
13 processor changes. 1.4, the processor changes the line
14 drawing. But it is arguable that the process of
15 generating and outputting the roof estimate report
16 system is part of the method, but I guess the method is
17 implemented inside the roof estimate report system. So
18 1.5 would be part of the report system as well.

19 Q. So just to be clear and conclude here, is it
20 your opinion that the roof estimate report system
21 performs all of the Limitations 1.0 to 1.5?

22 A. So I do not believe that in my declaration I
23 had an explicit opinion about that. Meaning that I may
24 make an error or be inaccurate, but I believe it is
25 correct that all of this functionality occurs inside the

1 roof estimate report system.

2 Q. So can we go to Figure 1, please, of the '737

3 patent.

4 A. '737, Figure 1.

5 Q. Figure 1.

6 A. I have Figure 1.

7 Q. So just put a pin in that for a second, and

8 let's also go back to your declaration and we have the

9 language of Limitation 1.5. And let's -- can you please

10 read the first clause of Limitation 1.5 up until the

11 comma.

12 A. I'm trying to find the page, page 9, 1.5:

13 Generating and outputting a roof estimate report using a

14 report generation engine, comma.

15 Q. Now can we go back to Figure 1, please --

16 A. Figure 1.

17 Q. -- of the '737 patent.

18 A. I'm at Figure 1.

19 Q. And do you see the report generation engine 103

20 is part of the roof estimation system?

21 A. I see the report generation engine 103, yes,

22 it's part of the roof estimation system.

23 Q. Can you please move ahead to Figure 8 of the

24 '737 patent.

25 A. Figure 8. I have Figure 8.

1 Q. Do you see in Figure 8 that the report
2 generation engine 813 is also part of the roof
3 estimation system 810?

4 A. I see that the report generation engine is part
5 of the roof estimation system, yes.

6 Q. So is it your understanding with respect to the
7 Phillips claim construction standard that claim terms
8 are understood according to the ordinary and customary
9 meaning in light of the specification?

10 A. I believe it's ordinary and customary, meaning
11 to a POSITA at the time, and I believe it's in light of
12 the specification.

13 Q. Okay. So in view of the drawings that we just
14 discussed, Figures 1 and Figure 8, is it your opinion
15 that the report generation engine, as recited in Claim
16 Limitation 1.5, is part of the roof estimation system?

17 A. That's a point I don't believe I addressed in
18 the declaration and so need to attend to it fairly
19 carefully. Claim 1 does not refer to a roof estimation
20 system. It refers to a roof estimate report system.
21 The report generation engine of 1.5 is part of a method
22 in the roof estimate report system. So the report
23 generation engine of 1.5 must be part of the roof
24 estimate report system, and I believe it is reasonable
25 that the roof estimation system and the roof estimate

1 report system mean about the same thing.

2 So, again, affected by the fact that I did not
3 have an opinion in my declaration and may make an error,
4 I believe the report generation engine belongs in the
5 roof estimation system. And the roof estimation system
6 of the figures could reasonably be interpreted as the
7 roof estimate report system of the claim.

8 Q. So is it your opinion that the roof estimate
9 report system in Claim 1, even though it uses a
10 different term, but is it your opinion that the roof
11 estimate report system in Claim 1 corresponds to the
12 roof estimation system in Figures 1 and 8?

13 A. I do not believe I formed an opinion in the
14 declaration on that point. So any opinion I have here
15 now may not be absolutely accurate, based on my memory
16 of the specification, I think it's reasonable to
17 conclude that the roof estimate report system and the
18 roof estimation system refer to the same object. But
19 there may be material in the specification that
20 contradicts that opinion.

21 Q. Are you aware of any material in the
22 specification that contradicts that interpretation?

23 A. I'm not aware of any such material, but I'm
24 concerned that there may be and that it has slipped my
25 memory.

1 Q. So let's turn back to Limitation 1.5, please,
2 and it's on page 9 of your declaration.

3 A. I have it.

4 Q. Do you see where Limitation 1.5 says:
5 Generating and outputting a roof estimate report using
6 a -- I'm sorry -- using a report generation engine?

7 A. I do.

8 Q. Okay. What is your understanding of the
9 feature of generating a roof estimate report?

10 A. The roof estimate report is described in 1.5 as
11 including numerical values for corresponding slope,
12 aerial lengths of edges of at least some of the
13 plurality of planar roof sections. The generated report
14 is provided for repair. I believe the generating
15 involves obtaining from the line drawings or the
16 representation of the respective line drawings referred
17 to in Claims -- in 1.2 and 1.3, numbers for slope area,
18 lengths of edges, and then outputting them.

19 Q. You indicated what's in the roof estimate
20 report. I want to understand how you are interpreting
21 the term generating a roof estimate report. What
22 happens when you generate a roof estimate report?

23 A. I believe I, in fact, spoke to that. My
24 intention was to point out that there is a process --
25 the generating is a process that takes the respective

1 line drawings on the first and second aerial image and
2 the underlying three-dimensional model represented by
3 those line drawings and obtains numbers for slope, area,
4 lengths of edges for a plurality of planar roof
5 sections.

6 Q. Can we please turn to Column 6, lines 28 to 39
7 of the '737 patent.

8 A. Claim 6, lines -- Column 6, lines --

9 Q. Lines 28 to 39.

10 A. I'm there.

11 Q. And can you please read that portion for the
12 record.

13 A. That reads: The report generation engine 103
14 generates a final roof estimate report based on a model
15 stored as model data 106, comma, and then stores the
16 generated report as report data 107, full stop.

17 Do you want to go on the rest of the paragraph
18 or is that what you wanted me to read?

19 Q. Yes, please.

20 A. Such a report typically includes one or more
21 plan, open parens, top, hyphen, down, closed parens,
22 views of the model, comma, annotated with numerical
23 values for the slope, comma, area, comma, and/or lengths
24 of the edges of at least some of the plurality of planar
25 roof sections of the model of the roof, full stop. The

1 report may also include information about total area of
2 the roof, comma, identification and measurement of
3 ridges and/or valleys of the roof, comma, and/or
4 different elevation views rendered from the 3D model,
5 open parens, topside front -- sorry, top, comma, side,
6 comma, front, comma, et cetera, closed parens.

7 Q. And then that paragraph concludes with it says:
8 An example report is illustrated and discussed with
9 respect to Figures 3A to 3E below; correct?

10 A. That's correct.

11 Q. Now, when you were interpreting the features of
12 Claim 1, did you do so with respect to the disclosed
13 embodiments in the '737 patent?

14 A. I believe the answer is yes.

15 Q. And can you please turn to Column 6 -- sorry.
16 Column 6 starting at line 60.

17 A. Starting at line 60. I'm there.

18 Q. And how about we just read the first
19 paragraph -- I'm sorry, the first sentence in that
20 paragraph.

21 A. The first sentence reads: In one embodiment,
22 comma, the generated report is then provided to a
23 customer, full stop.

24 Q. Okay. So what is your understanding of the
25 term "outputting" in Limitation 1.5?

1 A. Limitation 1.5, let me turn back to
2 Limitation 1.5. Outputting, Limitation 1.5, I discuss
3 in paragraph 18, 19, and 20 in the declaration. I
4 understood from the final written decision in the
5 previous IPR that this process of outputting involved
6 producing printed matter. There's more detail than
7 paragraph 20.

8 Q. We will get there in terms of the printed
9 matter. I just want to understand your -- strike that.

10 I would like to understand how you interpret
11 just the terms "generating" and "outputting" in
12 Limitation 1.5. Does that mean that a document is
13 created?

14 A. Outputting -- by document, you mean a piece of
15 paper or do you mean a document displayed on a screen?

16 Q. It could be either.

17 A. Okay.

18 Q. Just any document.

19 A. Outputting means, to me here -- again,
20 interpreting with the Phillip standard and, again,
21 acknowledging that understanding a term is somewhat
22 easier than providing a precise definition, generally,
23 outputting to me would mean offering to a user in some
24 way that they can interpret including but not limited to
25 a printed document, a display on a screen, some other

1 form of display.

2 Q. Okay. Let's go back to Column 6, line 61. Can
3 you please read that sentence.

4 A. The generated -- sorry, Column 6, line 61: The
5 generated report can be represented, comma, for example,
6 comma, as an electronic file, open parens, e.g., comma,
7 a pdf file, closed parens, or a paper document, full
8 stop.

9 Q. Okay. So is it your understanding then that
10 the roof estimate report that's recited in
11 Limitation 1.5 is a document?

12 A. Is a document? So the specification says: As
13 an electronic file or a paper document. The
14 specification seems to intend that there is a difference
15 between an electronic file and a document. Usage at the
16 time would have included a pdf file as a document.

17 So sorry, I'm sorry, I have lost track of the
18 question. Could you repeat the question?

19 Q. Sure. So let me be more accurate. Is it your
20 understanding that the roof estimate report as recited
21 in Limitation 1.5 can either be an electronic file or a
22 paper document?

23 A. That is my understanding, yes.

24 Q. Okay.

25 A. But it might be other --

1 Q. I apologize. Please finish.

2 A. I'm sorry. It might be other things as well.

3 Q. So let's go back to Limitation 1.5, and let's

4 look at the first one, two, three, four, five, six --

5 sorry, seven words. "Generating and outputting a roof

6 estimate report," do you see that?

7 A. I see that.

8 Q. So is it your understanding that a document,

9 whether it's in paper form or it's an electronic file,

10 is created and then output?

11 A. Okay. So the -- sorry. That's a delicate

12 question that requires a moment's thought. The object

13 that you generate is a roof estimate report, which is

14 then output. Is that roof estimate report necessarily a

15 document? The roof estimate report is either an

16 electronic file or a paper document from 661, that

17 sentence.

18 So there is a thing that is generated and then

19 a thing that is outputted. The thing that is generated,

20 I believe, is likely a document, and the thing that is

21 outputted is certainly a document.

22 Q. So you have been using the word generated and

23 generating when you have described Limitation 1.5. What

24 is your understanding of the term "generated"?

25 A. My understanding of the term, it describes a

1 process whereby information about slope, area, lengths
2 inside the line drawings or the 3D model represented by
3 the line drawings is put into an appropriate form and
4 then placed in a roof estimate report.

5 Q. It seems like we are talking about kind of
6 claim construction here. So let's go to section --
7 sorry -- paragraph 17 on page 10 of your declaration,
8 please.

9 A. Paragraph 17 on page 10.

10 Q. Yes. Are you there?

11 A. I'm at paragraph 17 on page 10.

12 Q. And do you see that paragraph 17 is under the
13 heading Claim Construction under
14 37 CFR Section 42.104(b)(3). Do you see that?

15 A. I see that.

16 Q. And can you please turn to paragraph 18.

17 A. Paragraph 18. I'm at paragraph 18.

18 Q. Okay. And do you see there that you have
19 construed the term generating and outputting a roof
20 estimate report?

21 A. I believe if one reads paragraph 18, 19, and
22 20, there is no actual construction. It says that
23 paragraph 18 recites the limitation. Paragraph 19 says
24 that the -- directed to generating printed matter, and
25 paragraph 20 says that in a previous final written

1 decision, the board held that the requirements as to
2 contents of the roof estimate report are not entitled to
3 patentable weight. I don't believe there's an explicit
4 construction in those sections.

5 Q. But your paragraphs 18 to 20 are under the
6 heading Claim Construction; is that correct?

7 A. Yes, they're under the heading Claim
8 Construction.

9 Q. And is your discussion of the printed matter
10 doctrine, is that related to an issue of claim
11 construction?

12 A. I believe it's related to an issue of claim
13 construction in that it says, essentially, there's no
14 further reason to discuss these issues because the board
15 in a previous final written decision said they had no
16 patentable weight.

17 Q. I understand that. And we will get to it. I
18 just would like to know why paragraphs 18 to 20 are
19 under the heading Claim Construction. Is there a reason
20 for that?

21 A. I think the reason is that we have been or I
22 have been told by the board and informed by the
23 attorneys that they have no patentable weight and so
24 don't need construing.

25 Q. Do you see paragraph 21 in your declaration?

1 A. I see paragraph 21.

2 Q. Do you see that that's underneath a heading of

3 Transmitting Roof Measurement Information, Claim 9?

4 A. I see that.

5 Q. Even though the paragraph 17 to 21 are under

6 the heading Claim Construction, are you saying that they

7 are not, in fact, constructions?

8 A. I don't believe I said that. I believe I said

9 that paragraph 18 and 19 do not contain an explicit

10 construction of generating an output -- generating and

11 outputting a roof estimate report. Because the board

12 said this did not have patentable weight. And the claim

13 that paragraph 21 describes a construction offered by

14 the board in a prior challenge.

15 Q. Okay. Let's go to Exhibit 1,010. You said you

16 had that; correct?

17 A. I believe I have it. Let's see.

18 Q. Exhibit 1,010, just for the record here, is the

19 final written decision in an IPR titled Xactware

20 Solutions versus EagleView Technologies, Inc.,

21 IPR2016-00592, Paper 50. It was a final written

22 decision that was issued on August 25, 2007.

23 Is that your understanding?

24 A. That's my understanding. I have it in front of

25 me.

1 Q. So if I refer to Exhibit 1,010 as the 592 final
2 written decision, will you understand that I'm referring
3 to the final written decision in the prior IPR involving
4 IPR2016-00592?

5 A. I will. If I'm confused, I will ask for
6 direction.

7 Q. Can you please turn to page 6 of Exhibit 1,010.

8 A. Page 6. I'm at page 6.

9 Q. Can you go to the bottom of page 6 of
10 Exhibit 1,010.

11 A. I am at the bottom of page 6.

12 Q. And in that paragraph, do you see that the
13 board indicated that no express claim constructions are
14 necessary to resolve whether petitioner has shown by a
15 preponderance of the evidence that the challenged claims
16 are unpatentable?

17 A. Yes, I see that sentence.

18 Q. So I would just like to understand your --
19 strike that.

20 In view of this indication in Exhibit 1,010,
21 page 6, why did you feel it was necessary to construe
22 claim terms in paragraphs 18 to 21 of your declaration?

23 MR. SMITH: Objection. Form.

24 THE WITNESS: I believe if I move further down
25 in Exhibit 1,010, the board is quite explicit about what

1 has patentable weight, and I believe I correctly
2 followed what they said. Sorry. I'm turning to
3 paragraphs 18, 19, and 20. I was informed that in the
4 final written decision, the board held that the detail
5 requirements are not entitled to patentable weight and
6 as a result did not have to concern myself with
7 construing them.

8 BY MR. BOWSER:

9 Q. This exhibit, 1,010, there is a high -- there's
10 an underlining in this exhibit. Do you see that?

11 A. In the exhibit? Could you give me a page
12 reference?

13 Q. I'm sorry, page 18.

14 A. Thank you. I see that.

15 Q. Did you add that underlining?

16 A. I did not.

17 Q. But the underlining is contained in the version
18 that you have and that is of record in your declaration;
19 correct?

20 A. The underlining is in the version that I
21 consulted, and it's in the version that's in my binder.

22 Q. But you did not add that underlining?

23 A. I did not add that underlining.

24 Q. So let's turn back to paragraph 18, please.

25 A. Paragraph 18.

1 Q. And the heading above paragraph 18 says:
2 Generating and outputting a roof estimate report for
3 independent Claims 1, 12, 16, and 26. Do you see that?
4 A. I see that.
5 Q. At the outset here, did you address Claim 12 in
6 your declaration?
7 A. Do I address Claim 12 in my declaration? Let
8 me see. So Ground 1 of -- does not address Claim 12.
9 Let's see. It may address it in Ground 2. Ground 2
10 does not appear to address Claim 12 either.
11 Q. So we can agree that you did not address
12 Claim 12 in your declaration?
13 A. I appear not to address Claim 12.
14 Q. I just wanted to be sure because it says
15 Claim 12 in paragraph 18 and then the header above
16 paragraph 18. So it just seems like it was a
17 typographical error; is that correct?
18 A. It may well be. I'm concerned that, to be
19 absolutely certain, I didn't address Claim 12. I'd just
20 have to check the document in detail, but if Ground 1
21 doesn't list it and Ground 2 doesn't list it, it seems
22 likely that I don't address it. So it's likely a
23 typographical error.
24 Q. All right. Can you please go to the text that
25 is below claim -- I'm sorry, can you please go to the

1 text, the claim language, that's below paragraph 18.

2 A. I'm there.

3 Q. And it starts with: Generating and outputting

4 a roof estimate report. Do you see that?

5 A. I see that.

6 Q. Okay. Can we agree that in or below

7 paragraph 18, you have reproduced the Limitation 1.5 of

8 Claim 1?

9 Please go back to --

10 A. I'm looking at 1.5, Claim 1 now. It was on

11 page 9. I believe that is correct.

12 Q. And I represent to you that, based on my

13 comparison, I think that is 1.5 as well.

14 And just for the sake of convenience, because

15 we are dealing with multiple claims, can we treat

16 Limitation 1.5 as representative of the corresponding

17 features in Claims 16 and 26 as well?

18 A. The declaration says they each recite a form of

19 the following limitations, which suggests there may be

20 differences in detail.

21 Q. Okay.

22 A. But they all contain some form of this

23 limitation.

24 Q. How about we go to -- excuse me, one second. I

25 lost a page. How about you go to, please, page 45 of

1 your declaration.

2 A. Page 45. I'm at page 45.

3 Q. Do you see Limitation 16.3?

4 A. I do.

5 Q. Can you please read that? You don't need to

6 read it aloud, but can you please read 16.3.

7 A. I have read 16.3.

8 Q. And does 16.3 look generally similar to you

9 with respect to Limitation 1.5?

10 A. 16.3 looks generally similar to Limitation 1.5.

11 Q. And then can you please go to page 50 of your

12 declaration.

13 A. I'm at page 50.

14 Q. And can you also look at Limitation 26.3.

15 A. I see that.

16 Q. Please read that.

17 A. Do you want it out loud?

18 Q. No, no, no. Please just read it to yourself.

19 That's fine.

20 A. I have read it.

21 Q. And does Limitation 26.3 seem generally similar

22 to Limitation 1.5?

23 A. It seems generally similar to 1.5.

24 Q. So let's go back to paragraph 18 of your

25 declaration, please.

1 A. I'm at paragraph 18.

2 Q. Okay. For the sake of convenience, can we both

3 agree that when we talk about 1.5, Limitation 1.5, as

4 reproduced in paragraph 18 of your declaration that we

5 are generally discussing Limitations 16.3 and 26.3 as

6 well?

7 A. We agree that we are generally discussing them.

8 Q. So in other words, we will treat Limitation 1.5

9 as representative of the discussion. Is that

10 understood?

11 A. I understand that, yes.

12 Q. So let's go to paragraph 19.

13 A. Paragraph 19.

14 Q. Can you please read the first sentence after

15 the citation.

16 A. These limitations are directed to generating

17 printed matter that has no functional or structural

18 relation to the substrate on which it is printed or

19 displayed.

20 Q. So do you see the words "these limitations" in

21 paragraph 19?

22 A. I do.

23 Q. Those two words. What do you mean by "these

24 limitations"?

25 MR. SMITH: Objection. Form.

1 THE WITNESS: The form of the following
2 limitation referred to in paragraph 18.
3 BY MR. BOWSER:
4 Q. You are referring to the entirety of
5 Limitation 1.5 in paragraph 18?
6 A. Paragraph 18 labels independent Claims 116 and
7 26 as reciting a form of the following limitation.
8 Paragraph 19 then refers to these limitations, which
9 must bind to the limitations in 112, which we are not
10 really discussing, 16 and 26.
11 Q. Let's back up here. So I thought we agreed
12 that when we talk about Limitation 1.5 under Claim 15,
13 we are also talking about Limitations 16.3 and 26.3; is
14 that right?
15 A. I believe that's correct, yes.
16 Q. So what are you referring to when you say
17 "these limitations" in paragraph 19?
18 A. The limitations in Claims 1, 12, which isn't
19 relevant, 16 and 26, which recite a form of the material
20 we referred to as 1.5.
21 Q. So just to be clear here, when you say "these
22 limitations," you're referring to Limitation 1.5, 16.3,
23 and 26.3; correct?
24 A. I believe that's correct. Yes.
25 Q. And are you referring to the entirety of those

1 limitations?

2 A. I'm referring -- syntax tells me that I'm
3 referring to the limitations of those claims that are of
4 the form recited in 18.

5 Q. And the form recited in 18 is Limitation 1.5 in
6 its entirety; correct?

7 A. It's 1.5 in its entirety, correct.

8 Q. So when you say "these limitations," you're
9 referring to Limitation 1.5 in its entirety,
10 Limitation 16.3 in its entirety, and Limitation 26.3 in
11 its entirety; correct?

12 A. I believe that to be correct.

13 Q. So in Column -- I'm sorry, not column. In
14 paragraph 19, you see the last sentence there, it says:
15 It is my understanding that limitations directed to such
16 printed matter are entitled to no patentable weight. Do
17 you see that?

18 A. I see that sentence.

19 Q. And who provided you with this understanding
20 about the printed matter doctrine?

21 A. Counsel and, to some extent, the board as
22 described in paragraph 20.

23 Q. And we talked earlier that you admitted that
24 you didn't review the federal circuit decisions that
25 were cited in your declaration other than Phillips;

1 correct?

2 A. I did not review the federal circuit decisions,
3 and the extent to which I reviewed Phillips was minimal.
4 I checked the wording.

5 Q. So this citation to In re DiStefano, that was
6 added by counsel to support your understanding; is that
7 correct?

8 A. It was certainly provided by counsel.

9 Q. Do you recall who wrote the citation in your
10 declaration?

11 A. I do not.

12 MR. BOWSER: All right. How about we take
13 another ten-minute break, and we will come back on the
14 record at 1:10 -- I'm sorry, 12:20 Eastern,
15 11:20 Central.

16 MR. SMITH: Yep, sorry. I'm mixing up my time
17 zones too. Yep. Let's do that.

18 (A recess was taken.)

19 BY MR. BOWSER:

20 Q. Dr. Forsyth, welcome back.

21 A. Thank you.

22 Q. Did you speak with counsel during the break?

23 A. I did not.

24 Q. So let's stay with paragraph 18 of your
25 declaration, and we agreed earlier that that -- the text

1 below paragraph 18 is Limitation 1.5; correct?

2 A. We did.

3 Q. And can you please read the entire
4 Limitation 1.5 that's reproduced under paragraph 18?

5 A. I can. Generating -- sorry, do you want me to
6 read it aloud or just read it?

7 Q. Yes, please. Read it aloud, please.

8 A. Generating and outputting a roof estimate
9 report using a report generation engine wherein the roof
10 estimate report includes numerical values for
11 corresponding slope, comma, area or length of edges of
12 at least some of a plurality of planar roof sections of
13 the roof, comma, wherein the generated roof estimate
14 report is provided for repair and/or constructing the
15 roof structure of the building, full stop.

16 Q. Okay. So that, again, is Limitation 1.5;
17 correct?

18 A. I believe that's correct, yes.

19 Q. And is it your opinion that the entirety of
20 Limitation 1.5 should not be given any patentable
21 weight?

22 A. The entirety -- I believe it's the board's
23 opinion. I believe also you're asking me a legal
24 question where you're asking me the board says the
25 detailed requirements are not entitled to patentable

1 weight. And you're asking me if the board is right.
2 And the answer has to be yes.

3 But the -- as of -- I can't answer that as a
4 legal matter. As a technical matter, I have been
5 informed that these limitations are directed to
6 generating printed matter and entitled to no patentable
7 weight.

8 Q. I'm not asking you to take a legal conclusion
9 or to agree with the -- agree or disagree with the
10 board's decision. What I'm asking you is: When you say
11 "these limitations" in claim -- sorry, let me back up.

12 What I'm asking you is in paragraph 19, when
13 you say "these limitations," are you referring to the
14 entirety of Limitation 1.5?

15 A. I believe that I am, and I believe that I'm
16 doing so because the board told me that these
17 limitations are not entitled to patentable weight.

18 Q. Do you remember saying earlier that your
19 understanding of the printed matter doctrine was based
20 on your conversations with counsel and based on the
21 description of the printed matter doctrine in the final
22 written decision; is that correct?

23 A. That's correct. I said that, and I believe I
24 also was careful to say that one should not rely on my
25 opinion of the printed -- or my knowledge of the printed

1 matter doctrine. I'm not an attorney.

2 Q. But when you assert that the limitations should
3 not be given patentable weight because they're allegedly
4 directed to printed matter, I'm trying to get your
5 understanding of what portions of the limitations should
6 not be given any patentable weight?

7 A. My understanding is that the board told me the
8 whole limitation should not be given patentable weight.

9 Q. Can we please turn to paragraph 20.

10 A. I'm at paragraph 20.

11 Q. And can you read that first sentence, please.

12 A. The first sentence of paragraph 20: I have
13 been informed by counsel that, comma, in its final
14 written decision in a prior IPR challenge -- and there's
15 a footnote. Do you want me to read the footnote?

16 Q. That's okay.

17 A. To the '737 patent by a different petitioner,
18 comma, the board considered these limitations, comma,
19 held that the, open inverted commas, the detailed
20 requirements as to the contents of the roof estimate
21 report, closed inverted commas, recited in these
22 limitations are not entitled to patentable weight. Then
23 there is a citation to Nearmap 1,010, 18.

24 Q. So you cited to Exhibit 1,010, page 18, which
25 is the final written decision in the prior IPR; correct?

1 A. I believe that's correct, yes.

2 Q. So can we go to page 18 of Exhibit 1,010.

3 A. Page 18 of Exhibit 1,010. I am at page 18 of
4 Exhibit 1,010.

5 Q. Let's go to the portion of page 18 with that
6 big ribbon underlining that was apparently added by
7 Nearmap's counsel. Do you see that?

8 A. I see that.

9 Q. Can you read that sentence partially
10 underlined?

11 A. That sentence says: Thus, the claimed content
12 of the information is not entitled to weight in the
13 patentability analysis.

14 Q. What is your understanding then of the content
15 of the information, that phrase, as used in the final
16 written decision?

17 A. The content of the information as used in the
18 final written decision, I would have to refer back to
19 the claim. At least the content of the information is
20 numerical values for corresponding slope, area, lengths
21 of edges of at least some of the plurality of planar
22 roof sections.

23 I note, furthermore, that on page 18, the board
24 tells me that the printed matter analysis applies
25 equally to process claims, and the step of generating

1 and outputting a roof estimate report includes -- is
2 similar to the informing step in King and then tells me
3 that generating and outputting are not entitled to
4 patentable weight.

5 Q. Can we please go back to paragraph 20 of your
6 declaration.

7 A. Paragraph -- paragraph 20. I'm at
8 paragraph 20.

9 Q. And the first sentence that you read earlier
10 says: I have been informed -- skipping ahead a little
11 bit, it says: Held that the, quote, detailed
12 requirements as to the contents of the roof estimate
13 report, end quote, recited in these limitations, quote,
14 are not entitled to patentable weight. Okay?

15 A. Yes.

16 Q. Do you see that?

17 A. I see that.

18 Q. Now, can we go to page 18 of the final written
19 decision, which is Exhibit 1,010?

20 A. Page 18, Exhibit 1,010.

21 Q. Do you see the sentence right above the heading
22 lower case "e" which says: Thus, comma, we are
23 persuaded that the detailed requirements as to the
24 contents of the roof estimate report are not entitled to
25 patentable weight, period?

1 A. I see that sentence.

2 Q. Is that the sentence that you are quoting in
3 paragraph 20 of your declaration?

4 MR. SMITH: Objection. Form.

5 THE WITNESS: The quote, you mean, is the one
6 in the sentence "are not entitled to patentable weight."
7 I do not recall because "are not entitled to patentable
8 weight" may appear at other locations in the board's
9 decision, but it is very likely that that sentence is
10 the sentence that I'm quoting.

11 BY MR. BOWSER:

12 Q. So you're saying that it's very likely that
13 that sentence is what you're quoting --

14 A. Right.

15 Q. -- on page 18; correct?

16 A. I'm saying it's very likely, but I'm also
17 saying "are not entitled to patentable weight" may
18 appear elsewhere in this final written decision.

19 Q. What I want to understand from your testimony
20 is what you understand the detailed requirements to be.
21 I mean, you have quoted this portion in your
22 declaration. So what do you understand the detailed
23 requirements of Limitation 1.5 to be?

24 MR. SMITH: Objection. Asked and answered.

25 THE WITNESS: The detailed requirements as to

1 the contents of the roof estimate report. So,
2 certainly, they include, as I believe I said in an
3 earlier answer, the corresponding slope, area, lengths
4 of edges of at least some of the plurality of roof
5 sections of the roof. But I note also that some
6 sentences above the one you referred to me in the final
7 written decision, the board refers to step of generating
8 and outputting a roof estimate report.

9 BY MR. BOWSER:

10 Q. So let's go back to paragraph 18, and I want to
11 just be clear here on the record which portions of
12 Limitation 1.5 you are not giving patentable weight.
13 Okay? So I'm going to read a portion, and I would like
14 for you to say whether you are giving that portion
15 patentable weight. Okay?

16 So the first portion is: Generating and
17 outputting a roof estimate report using a report engine.
18 Do you see that?

19 A. I see that.

20 Q. Are you giving that part of Limitation 1.5
21 patentable weight?

22 MR. SMITH: Objection. Form.

23 THE WITNESS: Sorry. I believe I'm instructed
24 by the board not to.

25

1 BY MR. BOWSER:

2 Q. Is your opinion then that you are being
3 instructed to do something by the board?

4 A. Well, I believe the board tells me in 18 in its
5 decision that the step of generating and outputting a
6 roof estimate report is similar to informing step and
7 was not -- thus not given patentable weight. We are
8 persuaded that this does not have patentable weight. If
9 the board tells me it doesn't have patentable weight,
10 then I'm in no position to correct them.

11 Q. Did you analyze the patentability of
12 Limitation 1.5 in paragraphs 57 to 62?

13 A. In paragraphs -- you are referring to my
14 report?

15 Q. Yes.

16 A. Fifty-seven through 62. Fifty-seven through 62
17 refers to the previous discussion, the previous
18 discussion on the board's thing. It says the content
19 does not modify. The claimed content is not entitled to
20 weight. Analyze is a bit strong, but I certainly
21 discussed it.

22 Q. You discussed Limitation 1.5 in paragraphs 57
23 to 62 of your declaration; is that correct?

24 A. That's correct.

25 Q. And do you see in paragraph 59 you are

1 referring to the Quam reference, Exhibit 1,005?

2 A. I see that, yes.

3 Q. And do you see in paragraph 60 you're also

4 referring to the Quam reference?

5 A. I see that, yes.

6 Q. And do you see in paragraph 61 you're also

7 referring to Quam?

8 A. I see that.

9 Q. Do you see in paragraph 62 you are referring to

10 the Quam and Heller references?

11 A. I see that.

12 Q. If the entirety of Limitation 1.5 is not

13 entitled to patentable weight, why did you feel it

14 necessary to discuss Limitation 1.5 in paragraphs 57 to

15 62 with regard to the prior art?

16 MR. SMITH: Objection. Form.

17 THE WITNESS: I believe it's a logical

18 possibility that the board may feel they misdirected

19 themselves or that the patent owner may make a

20 compelling argument that these -- that I hadn't

21 anticipated that these are entitled to patentable

22 weight. And in that circumstance, I want to be clear

23 that there is, in fact, prior art as well.

24 BY MR. BOWSER:

25 Q. Let's go back to paragraph 18. This is the

1 last -- I'm going to ask you about this. I just want to
2 be clear for the record and I'm going to read specific
3 portions of the claim, and I'm going to ask you if you
4 attribute patentable weight to that specific portion.
5 Okay?

6 A. Yes.

7 Q. So paragraph 18 says: Generating and
8 outputting a roof estimate report using a report
9 generation engine. Do you see that?

10 A. I see that.

11 Q. Did you assign patentable weight to that
12 specific portion that I just read?

13 A. Did I assign patentable weight?

14 MR. SMITH: By the way, object to form on this.

15 THE WITNESS: I'm sorry.

16 In the sections discussing patentable weight, I
17 believe I did not because the final written decision
18 said that it did not have patentable weight.

19 BY MR. BOWSER:

20 Q. So is it your understanding that the final
21 written decision says that the entirety of
22 Limitation 1.5 should not be given patentable weight?

23 MR. SMITH: Objection. Asked and answered.

24 THE WITNESS: That is my understanding. But I
25 want to be very clear that I'm not, in fact, an attorney

1 and may be capable of misinterpreting the board's
2 directions.

3 BY MR. BOWSER:

4 Q. So there are three essential clauses in
5 Limitation 1.5. We talked about the first one. If you
6 would humor me here, there's just two more here we are
7 going to go. I just want to get this on the record.

8 Limitation 1.5 says: Wherein the roof estimate
9 report includes numerical values for corresponding
10 slope, area, or lengths of edges of at least some of a
11 plurality of planar roof sections of the roof. Do you
12 see that?

13 A. I see that.

14 Q. And are you giving patentable weight to that
15 specific clause?

16 MR. SMITH: Objection. Asked and answered.

17 THE WITNESS: I believe in the board's
18 decision, the board refers to detailed requirements as
19 to contents of the roof estimate report, and it says
20 that they are not entitled to patentable weight. And I
21 follow the board in that respect.

22 BY MR. BOWSER:

23 Q. What I'm trying to figure out is you use the
24 word "detailed requirements" and you quote it. What is
25 your understanding of the detailed requirements?

1 A. My understanding of the detailed
2 requirements -- so it is detailed requirements as to the
3 contents of the roof estimate report. My understanding
4 of detailed requirements as to the contents of the roof
5 estimate report are at least numerical values for
6 corresponding slope, area, or lengths of edges of at
7 least some of the plurality of planar roof sections of
8 the roof.

9 Q. Okay.

10 A. And I believe the detailed requirements could
11 include in its scope the purpose of the report, which is
12 described as repair or constructing the roof structure
13 of the building.

14 Q. So then that last clause, wherein the generated
15 roof estimate report is provided for repair and/or
16 constructing the roof structure of the building, you
17 have not given that any patentable weight; is that
18 correct?

19 A. In -- yes, let me check my declaration. I
20 believe that that is correct.

21 Q. So let's turn to paragraph 21 where you address
22 the limitation transmitting roof measurement
23 information. Do you see that?

24 A. I see that.

25 Q. Sorry for jumping around here, but let's turn

1 next to page 39 where you reproduce the entirety of
2 Claim 9. Let me know when you get there. This is just
3 for context. Page 39, just so you can see the entirety
4 of the limitation because the heading on -- below
5 paragraph 21 doesn't have the entirety of Claim 9.

6 A. I have page 39.

7 Q. Can you read Claim 9?

8 A. Do you want me to read it out loud?

9 Q. Yes, please.

10 A. Okay. Claim 9, Limitation zero, the method of
11 Claim 1 further comprising, colon, transmitting roof
12 measurement information based at least in part on the
13 change of the line drawing representing a feature of the
14 roof that overlies the first aerial image of the roof,
15 full stop.

16 Q. Can you go back to paragraph 21, please.

17 A. Paragraph 21. I'm at paragraph 21.

18 Q. And can you go to the second sentence that
19 starts with "For the purposes of the present
20 proceeding." Do you see that sentence?

21 A. I see that sentence.

22 Q. Can you please read that for the record aloud.

23 A. Out loud. Okay. For the purposes of the
24 present proceeding, comma, this limitation should be
25 interpreted broadly enough to encompass transmitting

1 roof measurement information between components of the
2 same computer system, comma, consistent with the board's
3 interpretation of the term in the prior IPR challenge to
4 the '737 patent, full stop.

5 Q. And can you go down here, sorry, let me count,
6 nine lines where in the middle of the sentence it says:
7 See id. In addition, comma, the '737 patent
8 specification? Do you see that sentence?

9 A. I see that sentence.

10 Q. Can you please read that sentence.

11 A. Italics, See id, full stop. In addition,
12 comma, the '737 patent specification contemplates this
13 type of transmission, full stop.

14 Q. Just to be clear, you cite to Exhibit 1,001,
15 which is the '737 patent, and Column 16, lines 15 to 17
16 and Figure 8 to support your interpretation; is that
17 correct?

18 A. That appears in the declaration, yes.

19 Q. So can we please go to the '737 patent and
20 let's look at Column 16.

21 A. Column 16. I'm at Column 16.

22 Q. Before we go there, I think it will be helpful
23 to look first at Figure 8. Can we do that first?
24 Sorry.

25 A. I have Figure 8.

1 Q. So do you see roof estimation system 810?
2 A. 810 roof estimation system, yes, I see that.
3 Q. Yes. And do you see report generation engine
4 813?
5 A. I see report generation engine 813, yes.
6 Q. And do you see other computer-readable media
7 805 sort of towards the bottom of that drawing?
8 A. I see that, yes.
9 Q. And do you see that all of those components are
10 contained within the computing system 800; is that
11 correct?
12 A. Those components are contained in 800, the
13 computing system, that's correct.
14 Q. So let's go back to Column 6 starting at
15 line --
16 A. Column 6?
17 Q. Yes, I'm sorry, 16. I apologize, 16. Line 13.
18 A. Column 16, line 13. Ten, 11, 12, 13, I have
19 it.
20 Q. Can you read there until -- so lines 13 to 18
21 in the record, please, aloud.
22 A. Starting at "The RES"?
23 Q. And RES is an abbreviation for roof estimation
24 system.
25 A. Okay. So it reads: The capital R, capital E,

1 capital S 810 is shown residing in memory 801, full
2 stop.

3 Sorry. Did you want me to go on or --

4 Q. Yes, please, until line 17.

5 A. In other embodiments, some portion of the
6 contents, some of or all of the components of the
7 capital R, capital E, capital S 810 may be stored on
8 and/or transmitted over the other computer-readable
9 media 805, full stop.

10 Q. So do you understand the acronym RES to mean
11 the roof estimation system in that portion that you just
12 read?

13 A. I believe that acronym refers to the roof
14 estimation system.

15 Q. Just so that we are clear and you don't think
16 I'm trying to feed you things here, go to Column 15,
17 lines 58 to 67.

18 A. Column 15.

19 Q. Lines 58 to --

20 A. Fifty-eight to 67.

21 Q. -- 67.

22 A. I have it.

23 Q. And can you read that -- you can read it to
24 yourself but the first two sentences.

25 A. I have read the first two sentences, yes.

1 Q. And do you see in line 61 it says: A roof
2 estimation system, RES 810?
3 A. I do.
4 Q. So when we talk about the RES 810 in Column 16,
5 it's referring to the roof estimation system?
6 A. Yes, it is.
7 Q. Okay. All right. So let's go back to
8 Column 16 and in the portions that you read in lines 13
9 to line 17, and it says that the RES -- how about I read
10 the portion and then you look at Figure 8. Would that
11 help?
12 A. As you prefer.
13 Q. So it says: The RES 810 is shown residing in
14 memory 801. All right? And does that mean that the RES
15 is a computer program?
16 A. No, it means it's residing in memory. There
17 may be other things that reside in memory than computer
18 programs. It's very likely to be a computer program
19 based on the description of what it does.
20 Q. So your understanding then in the second
21 sentence that we talked about here, I will read this:
22 In other embodiments, some portion of the contents, some
23 of, or all of the components of the RES 810 may be
24 stored on and/or transmitted over the other
25 computable -- sorry -- the other computer-readable media

1 805. Do you see 805 again in Figure 8?
2 A. I see 805.
3 Q. So this is the portion that you cited in
4 paragraph 21 of your declaration; is that correct?
5 A. I should check that, but I believe that to be
6 true.
7 Q. Okay.
8 A. Sorry, paragraph 21, 16:15-17, for example.
9 Q. Doesn't that portion of the specification
10 indicate that the RES or the roof estimation system is
11 stored and/or transmitted over the other
12 computer-readable media 805?
13 A. I'm sorry, could you repeat the question?
14 Q. So this portion that I just read, doesn't that
15 portion -- Column 16, lines 14 to 17, doesn't that
16 portion of the specification indicate that it's the RES
17 or roof estimation system 810 that's stored and/or
18 transmitted over the other computer-readable media 805?
19 MR. SMITH: Objection. Form.
20 THE WITNESS: I'm sorry, no, it doesn't. On
21 its face, it says: Some portion of the contents, some
22 of, or all of the components of the RES may be stored
23 and/or transmitted.
24 BY MR. BOWSER:
25 Q. Does that portion that I just read and that you

1 read, does that portion indicate that roof measurement
2 information is transmitted to the internal memory 805?

3 A. It suggests that it is because it says some
4 portion of the contents, and roof measurement
5 information will be a portion of the contents of the
6 roof estimation system.

7 Q. And you're interpreting the word "contents"
8 then as being information generated by the roof
9 estimation system?

10 A. I'm interpreting contents as information that
11 is inside the roof estimation system. Once the thing is
12 generated, it's inside the system.

13 Q. So to be clear, the contents, you're
14 interpreting that word as being information generated by
15 the system?

16 A. No, I'm interpreting that word as contents.
17 Its scope could include information generated by the
18 system and as a result inside the system and, therefore,
19 part of its content.

20 Q. Do you see in that portion that we just read,
21 Column 16, line 13 to 17, any discussion of roof
22 measurement information?

23 A. Sorry. I only cite 15 through 17. Or I
24 only -- 13 through 17 -- do I see any reference to roof
25 measurements; is that the question?

1 Q. Yes.

2 A. Okay. There is no explicit reference to roof
3 measurements, but there is a reference to some portion
4 of the contents of the RES, which would include roof
5 measurements.

6 Q. So your interpretation is that contents means
7 or could include roof measurement information; is that
8 correct?

9 A. That contents could include roof measurement
10 information, that's correct.

11 Q. Let's turn to page 14 of your declaration,
12 please.

13 A. Page 14. I'm at page 14.

14 Q. Do you see that your declaration discusses
15 Ground 1 on page 14?

16 A. I do.

17 Q. Can you please turn to page 51 above
18 paragraph 93, page 51 again.

19 A. Of my declaration? Fifty-one, paragraph 93, I
20 see that.

21 Q. Do you see that your declaration discusses
22 Ground 2?

23 A. I see that. Yes.

24 Q. Can you please just sort of put your thumb on
25 pages 14 and 93, those two sections we just talked

1 about?

2 A. You mean page 51, Section 93?

3 Q. I'm sorry, page 14 and page 51.

4 A. All right. I have those.

5 Q. So are you able to compare the claims in

6 Ground 1 with the claims of Ground 2?

7 A. I'm sorry. I don't think I understand the

8 question.

9 Q. So do you see on page 14 that you identify

10 Claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34 as being

11 obvious over Heller in view of Quam?

12 A. I see that, yes.

13 Q. Can you turn to page 51 and please keep your

14 like, you know --

15 A. Yeah.

16 Q. Page 14 available.

17 A. Fifty-one, yes.

18 Q. Do you see that you have identified Claims 1,

19 6, 7, 9, 10, 16, 17, 25, 26, and 34 as obvious over

20 Heller in view of Quam and Deaton. Do you see that?

21 A. I see that.

22 Q. So are you arguing that the same claims of the

23 '737 patent are unpatentable over two different grounds?

24 A. I believe that's a correct statement, yes.

25 Q. Did you develop these grounds yourself?

1 A. In discussion with attorneys. I think the
2 details of who did what are a bit difficult for me to
3 recall.

4 Q. Were you aware of the Heller reference before
5 you were contacted by counsel for Nearmap, here counsel
6 being the attorneys at Fish & Richardson?

7 A. Oh, yes, yes, I knew Heller quite well and I
8 know Pascal Fua and I knew the SRI work.

9 Q. And were you familiar with the Quam reference
10 before --

11 A. The Quam reference, I don't have a detailed
12 recall of reading that paper, but I knew Quam and I knew
13 what he was up to. I don't think we met in person, but
14 I knew his stuff for some time.

15 Q. So it's interesting to me that the Quam
16 reference is actually the -- the author of Quam, the
17 first listed author, is also Aaron J. Heller; is that
18 correct, if you go to Exhibit 1,005?

19 A. 1,005, the Quam reference, the first author is
20 Aaron Heller, that's correct.

21 Q. And Heller, the reference which is 1,004, also
22 identifies Aaron Heller as the primary author; is that
23 correct?

24 A. Aaron Heller is the first author on 1,004.
25 That's correct.

1 Q. So were you familiar with Heller before being
2 engaged in this matter?

3 A. When you refer to Heller, do you mean the
4 person or the papers?

5 Q. I'm referring to the paper here, Exhibit 1,004.

6 A. Was I familiar? I'm sure I had read that
7 before I had been referred to the attorneys. It would
8 have been sometime between now and '97. So when, I'm
9 not sure, and I knew Heller in person.

10 Q. And we just talked about how Quam, its first
11 identified author is also Aaron Heller. Do you see
12 that?

13 A. I see that.

14 Q. Were you aware of Quam, the Exhibit 1,005, were
15 you aware of that before you were engaged in this
16 matter?

17 A. I don't believe I had read that particular
18 paper, but I was very aware of the radius common
19 development environment. It's a fairly significant
20 thing in the history of computer vision.

21 Q. And Quam looks like it was from 1997 whereas
22 Heller was from 1996; is that correct?

23 A. I think that's correct, yes.

24 Q. Were you aware of Deaton before you were
25 engaged in this matter?

1 A. I don't believe I had read Deaton before, no.

2 Q. Did you do any prior art searching to find the

3 references that are cited in your declaration?

4 A. Yes. I rather thought -- think I found Heller.

5 I certainly knew that Heller was a person who was doing

6 things of interest here. I don't believe I found

7 Deaton.

8 Q. And do you recall if you found Quam?

9 A. I do not.

10 Q. I would next like to discuss the differences in

11 the grounds. And let's turn to paragraph 57, please.

12 A. Of my declaration?

13 Q. Yes.

14 A. Okay. I'm at paragraph 57.

15 Q. Can you please read paragraph 57 aloud.

16 A. Fifty-seven reads: As previously discussed,

17 comma, open inverted commas, the detailed requirements

18 as to contents of the roof estimate report, closed

19 inverted commas, recited in these limitations, open

20 inverted commas, are not entitled to patentable weight,

21 full stop, closed inverted footnote. Then there's a

22 reference to Nearmap-1010 '592 FWD, comma, 18. You want

23 the whole paragraph?

24 Q. You can stop there, and let's move to

25 paragraph 58. You can just read that one, please.

1 A. Since the specific information content in the
2 report described in the claim is not limiting, it
3 follows that a showing of generating and displaying any
4 graphical or textual information is sufficient to meet
5 the claim. I'm sorry, the phrase "generating and
6 displaying in a graphical or textual information" is in
7 inverted commas. And then it's italic Id., full stop,
8 comma, 18, full stop.

9 Q. And in paragraphs 57 to 58 that you just read,
10 are you making a legal conclusion based on the printed
11 matter doctrine?

12 A. I'm unable to make legal conclusions.

13 Q. So let's go to paragraph 58, please. Is it
14 your opinion based on your paragraph 58 that a modeling
15 system that, quote, generates and displays any graphical
16 or textual information renders obvious Limitation 1.5?

17 A. I think we would need to be more precise about
18 modeling system for that segment to be correct. So you
19 used the phrase "modeling system." There are many
20 modeling systems.

21 Q. So Heller teaches -- let's go to Exhibit 1,004
22 and go to page 1, please.

23 A. Page 1. I'm sorry. I'm at page 1.

24 Q. And if we look at the abstract, Heller
25 describes the radius program. Do you see that?

1 A. I see that.

2 Q. And the radius program in the first sentence is
3 directed to radius model supported image exploitation
4 paradigm, and it creates a three-dimensional model; is
5 that correct?

6 A. That's correct.

7 Q. Would you consider Heller to be directed to a
8 modeling system?

9 A. Heller certainly is a modeling system, but
10 there are modeling systems that are not like Heller.
11 Sorry, that are not like Heller.

12 Q. What in your understanding then -- if you had
13 to describe the type of modeling system of Heller, how
14 would you describe it?

15 A. It's a model-supported image exploitation
16 system that uses three-dimensional geometric models and
17 an understanding of camera geometry to allow users to
18 build accurate three-dimensional models of approximately
19 polyhedral objects seen on-site -- seeing images.

20 Q. So let's go here if you can. Keep your thumb
21 on Heller. I want to come back to it. But I want to
22 quickly cover something here in paragraph 29 of your
23 declaration where you're describing the types of systems
24 in Heller and Quam. Can you please go to paragraph 29
25 of your declaration.

1 A. Twenty-nine?

2 Q. Yes.

3 A. I'm at paragraph 29.

4 Q. And you describe Heller as being a radius
5 testbed system to create three-dimensional models of
6 buildings and other structures through the analysis of
7 one or more images of the structures; is that correct?

8 A. That's correct.

9 Q. You also describe Quam as being directed to the
10 radius common development environment or RCDE which is a
11 portion of the radius platform that provides the
12 foundation for the radius testbed system or RTS
13 described in Heller; is that correct?

14 A. That's correct.

15 Q. So if we were to describe here -- going back to
16 my question about modeling systems, so if we were to --
17 instead of using the generic term "modeling system," if
18 we were to say -- if I were to ask you if a radius
19 modeling system that generates and displays any
20 graphical or textual information, is that sufficient to
21 meet Limitation 1.5 when you look at the statement in
22 paragraph 58 of your declaration?

23 A. I believe the graphical or textual information
24 that it displayed would have to relate to the model, but
25 assuming that it did relate to the model, then I believe

1 that's correct. It would meet the claim.

2 Q. Is it your opinion then that the Heller/Quam
3 combination renders obvious Limitation 1.5 if this
4 limitation is not given patentable weight?

5 A. Is it my opinion that Heller/Quam renders
6 obvious 1.5 -- sorry, if 1.5 is not given patentable
7 weight? I believe that's correct, yes.

8 Q. Let's turn to paragraph 59.

9 A. I'm at paragraph 59.

10 Q. And do you see there that you talk about Quam?

11 A. I see that.

12 Q. And you quote a portion of Quam that says:
13 This allows each type of data to be represented,
14 manipulated, and displayed in the most convenient and
15 precise form without sacrificing functionality or
16 generality in addition to enabling the fusion of
17 different types of geometric data. Do you see that?

18 A. I see that.

19 Q. And if you would like to see that in Quam,
20 that's on page 1. I can point you to that. It's
21 Exhibit 1,005 --

22 A. Page 1.

23 Q. -- on the right-hand column. Do you see the
24 right-hand column that starts with "the major
25 achievement of the system"?

1 A. I see that.

2 Q. So when you refer to these types of data -- or
3 sorry, let me correct that. Strike that.

4 When you refer to each type of data that is
5 displayed in paragraph 59, what is the type of data that
6 is displayed in Quam?

7 A. Well, paragraph 60 tells me that one type of
8 data is the image coordinates and apparent 3D
9 coordinates of the selected point.

10 Q. So are we supposed to then interpret
11 paragraph 59 in light of paragraph 60?

12 A. I'm sorry, I don't think I fully understand the
13 question.

14 Q. Well, I asked you what you understand the type
15 of data to be represented in Quam as you cited in
16 paragraph 59. And you answered that, well, look at the
17 information that I cite to in paragraph 60; is that
18 accurate?

19 A. I said that paragraph 60 gives an example of
20 types of data.

21 Q. So paragraph 59 of your declaration cites to
22 page 1; is that right? Page 1 of Quam?

23 A. Cites to page 1 of Quam, that's correct, yes.

24 Q. Yes. And paragraph 60 cites to page 11 of
25 Quam; is that right?

1 A. Paragraph 60 cites to page 11 of Quam. That
2 looks as though it's correct, yes.

3 Q. So to understand what the phrase "type of data"
4 in page 1 of Quam that you cite to in paragraph 59, are
5 we then supposed to look to examples on page 11 of Quam
6 as cited in paragraph 60 of your declaration?

7 A. No, it's an example. If I read the paragraph
8 on page 1 of Quam, there are a variety of types of data
9 listed, including cartographic and cultural features,
10 images and subimages, text annotations, graphical user
11 interface elements, photogrammetric conjugate points,
12 and even the earth itself or a representation of the
13 earth itself.

14 Q. Pardon me. Where are you reading that from?

15 A. Quam page 1, the Column 2, paragraph that
16 reads: The major achievement of the system. The third
17 sentence is a list of different kinds of entities.

18 Q. So the sentence that you just read said: This
19 includes cartographic and cultural features, images and
20 subimages, text annotations, graphical user interface,
21 GUI elements, photogrammetric conjugate points, and even
22 the earth itself; is that right?

23 A. I read that sentence, yes.

24 Q. And then two sentences later when it says:
25 This allows each type of data to be represented,

1 manipulated, and displayed, when you see that sentence,
2 you're interpreting each type of data to refer back to
3 the cartographic and cultural features sentence; is that
4 correct?

5 A. No, I'm interpreting it to include the elements
6 mentioned in that sentence. It's clearly a list.

7 Q. So that list of information that you just read
8 in column -- I'm sorry, the right column of page 1 of
9 Quam, does that information correspond to a roof
10 estimate report?

11 A. There is no explicit mention of a roof estimate
12 report. The cartographic and cultural features might
13 include roofs.

14 Q. It might include roofs; is that what you said?

15 A. Yes, a roof can be interpreted as a cultural
16 feature.

17 Q. But not cartographic?

18 A. I would have to consider that point. I think
19 geographic information systems designers would object
20 but others might not.

21 Q. So is it your testimony then that this sentence
22 that starts with "this includes cartographic and
23 cultural features," is it your testimony then that you
24 would interpret that as having a roof estimate report?

25 A. No, I interpret it as a list of examples of

1 types of data which could include a roof estimate
2 report.

3 Q. So let's go back to paragraphs 59 to 61. Can
4 you please go back to those sections. And if you would,
5 just read those to yourself just so you're familiar with
6 the content of those portions.

7 A. Sixty-one -- I have read those.

8 Q. In paragraphs 59 to 61, do you explain or
9 provide an opinion about how any of the information
10 that's cited in paragraphs 59 to 61 might correspond to
11 a roof estimate report?

12 MR. SMITH: Objection. Form.

13 THE WITNESS: There is no explicit mention of
14 roof estimate reports in those paragraphs. The
15 paragraphs explain how the objects represented in Quam
16 can be used to generate and display information on the
17 screen about the objects that are represented.

18 BY MR. BOWSER:

19 Q. So let's come back then to paragraph 58 since
20 you just said that the information in paragraph 59 to 61
21 can be used to generate and display graphical or textual
22 information; is that right?

23 MR. SMITH: Objection. Form.

24 THE WITNESS: I believe I said that what Quam
25 does is describe that his system can display this

1 information of objects.

2 BY MR. BOWSER:

3 Q. So let's just go through here and in
4 paragraph 59 we have the words "each type of data,"
5 right, that you have quoted?

6 A. Yes.

7 Q. So is displaying that each type of data -- as
8 you quoted in paragraph 59, is displaying that type of
9 data sufficient by itself to meet Limitation 1.5 in your
10 opinion?

11 A. Displaying in -- displayed in the most
12 convenient and precise form, I think, is enough to meet
13 the limitation. Displaying is the main thing.

14 Q. I apologize, go ahead.

15 A. Did the court reporter get that? Should I
16 repeat?

17 (Clarification.)

18 THE WITNESS: I believe that what -- that
19 displayed in the most convenient and precise form does
20 meet the limitations. Displaying alone may or may not.

21 BY MR. BOWSER:

22 Q. So displaying in the most convenient and
23 precise form does meet the limitation, but displaying
24 alone may or may not; is that your testimony?

25 A. I believe that's correct, yes.

1 Q. So let's go to paragraph 60 where you quote a
2 portion of Quam that references using a mouse to click
3 on an image being displayed by the RCDE, which in
4 response displays both the image coordinates and
5 apparent 3D coordinates of the selected point. Did I
6 read that correctly?

7 A. You read that correctly.

8 Q. So to paraphrase here a little bit,
9 paragraph 60 identifies a mouse, an image, and image
10 coordinates; is that right?

11 MR. SMITH: Objection. Misstates prior
12 testimony.

13 THE WITNESS: Quam lists a mouse, an image,
14 image coordinates, and the apparent 3D coordinates of a
15 selected point.

16 BY MR. BOWSER:

17 Q. So we have a mouse, we have an image, we have
18 image coordinates, and apparent 3D coordinates of a
19 selected point; is that right?

20 MR. SMITH: Same objection.

21 THE WITNESS: At least.

22 BY MR. BOWSER:

23 Q. Is there any other information that's cited in
24 paragraph 60?

25 A. Well, there's the RCDE.

1 Q. Does that provide a basis to say "at least"?
2 A. Yes.
3 Q. I'm confused.
4 A. I'm afraid I'm confused. I'm not absolutely
5 certain about what your question is. Are we listing all
6 entities referred to in paragraph 60? Or are we doing
7 something else?
8 Q. Yes. We are listing the information that you
9 specifically cited in paragraph 60 so we have --
10 THE STENOGRAPHER: I couldn't get that answer
11 because you were over speaking.
12 THE WITNESS: I'm sorry. We are listing the
13 information that is displayed; is that correct?
14 BY MR. BOWSER:
15 Q. Yes.
16 A. So I believe the information that is displayed
17 in paragraph 60 are the image coordinates and also the
18 apparent 3D coordinates of the selected point.
19 Q. So the image coordinates and the apparent 3D
20 coordinates of the selected point, the display of that
21 information, is that sufficient in your opinion to meet
22 Limitation 1.5?
23 A. I believe that the board tells me that it is in
24 the previous final written decision. Because they tell
25 me that things that are computed from the 3D model are

1 sufficient. One thing that is computed from the 3D
2 model is the apparent 3D coordinates of the selected
3 point.

4 Q. Let me just read that back. Did you say that
5 the board told you that things that are computed from
6 the 3D model are sufficient?

7 A. I believe that's correct in the final written
8 decision 1,010.

9 Q. Where can you -- can you point me to that?

10 A. It may take a moment, but I believe the answer
11 is yes.

12 Q. If I can make it easier for you, the discussion
13 is on pages 16 to 18 of Exhibit 1,010, the final written
14 decision.

15 A. Well, what I had in mind -- whoops --
16 transmitting roof measurement information. On page 19,
17 displaying a roof in a local coordinate system is
18 sufficient.

19 Q. Can I pause you there? You just said that the
20 final written decision -- I'm going to read it back from
21 the transcript -- says that displaying a roof in a local
22 coordinate system is sufficient on page 19; is that
23 correct?

24 A. I believe that's correct, yes.

25 Q. And it appears that you read the following

1 statement on page 19, which says: We agree with
2 petitioner that Avrahmi, which is a reference that was
3 at issue in this IPR, displays, quote, roof measurement
4 information by displaying a roof in a local coordinate
5 system even though Avrahmi does not label its
6 measurement units. Did I read that correctly?

7 A. You read that correctly.

8 Q. So is it accurate then to say, as you said
9 earlier, that transmitting roof measurement information
10 and displaying a roof in a local coordinate system is
11 sufficient to meet Limitation 1.5?

12 MR. SMITH: Objection. Form.

13 THE WITNESS: I believe the board said that
14 displaying roof measurement information in a local
15 coordinate system is sufficient.

16 BY MR. BOWSER:

17 Q. With respect to the Avrahmi reference; is that
18 correct?

19 A. I believe that's correct, yes.

20 Q. But it's not in the abstract; is that correct?

21 A. I'm sorry, what's not in what abstract?

22 Q. When you said displaying roof measurement
23 information, you didn't mention the fact that the board
24 is discussing Avrahmi; is that right?

25 A. I did not.

1 Q. So when I say it's not in the abstract, what I
2 meant was, you said it without discussing the Avrahmi
3 reference; is that understood?
4 A. I believe that's correct, yes.
5 Q. Okay.
6 MR. SMITH: All right, John.
7 MR. BOWSER: Yes.
8 MR. SMITH: I was going to say we are -- we
9 have been going about an hour. Can we good and maybe
10 break for lunch, whatever your -- I will let you get to
11 the end of whatever your line of questioning is. I just
12 wanted to raise that.
13 MR. BOWSER: We can take a break in like three
14 minutes. I want to just ask -- don't quote me. I want
15 to just finish my discussion here --
16 MR. SMITH: Yeah, no problem.
17 MR. BOWSER: -- about paragraphs 60 to 62 and
18 then that's it.
19 BY MR. BOWSER:
20 Q. But before we do that, Dr. Forsyth, do you feel
21 like you have reviewed the final written decision
22 sufficiently to answer my question about is it
23 sufficient to only generate and display any graphical or
24 textual information to meet the claim?
25 A. I have read the final written decision a couple

1 of times, but I do not have it at my fingertips. And I
2 would not want to have an inaccurate opinion quickly.

3 Q. But in paragraph 58, you say, reading: It
4 follows that a showing of generating and displaying any
5 graphical or textual information is sufficient to meet
6 the claim; is that right?

7 A. I say that, yes.

8 Q. So can we go to paragraph 61, please.

9 A. Paragraph 61. I'm at paragraph 61.

10 Q. You cite a portion of Quam which talks about a
11 contour map. Do you see that?

12 A. I see that.

13 Q. Let's go -- I think it would be helpful if we
14 just talk about the contour map, and let's go to page 8
15 of Quam. And this will be quick so we can finish this
16 line of questioning.

17 A. I'm at page 8.

18 Q. All right. And what you cite to you see in the
19 left-hand column?

20 A. I see the left-hand column.

21 Q. And like halfway down or three-quarters of the
22 way down the page, contour map?

23 A. I see that.

24 Q. And please look at page 8 while I read
25 paragraph 61 just so that it will be easier to follow.

1 Paragraph 61 says: Quam further describes a, quote,
2 contour map, end quote, object that, quote, displays a
3 set of contours of constant elevation computed from a
4 digital terrain model, comma, end quote, a, quote, map
5 grid, end quote, object that, quote, displays lines of
6 constant latitude and longitude or UTM coordinates, end
7 quote, and a, quote, text, end quote, object that,
8 quote, displays a string of text at a 3D location in a
9 site, end quote, period.

10 A. I see those, yes.

11 Q. Okay. So what you cited in paragraph 61 are
12 the entries for contour map, map grid, and text; is that
13 correct?

14 A. That's correct.

15 Q. Is displaying a contour map why you believe
16 that Quam teaches Limitation 1.5?

17 A. Quam teaches that you can display information
18 from a 3D model, and that is sufficient to render 1.5
19 obvious. The 3D model is the contour map -- sorry, the
20 contour map is the object. The 3D model is the digital
21 terrain model, and the information displays are the
22 lines of -- so sorry, the contours are constant
23 elevation.

24 Q. So displaying a contour map along with a grid
25 and text, is it your testimony then that displaying

1 those three types of information are sufficient to meet
2 Limitation 1.5?

3 A. If they had been derived from a 3D model, they
4 should be, yes.

5 Q. So displaying a 3D model is sufficient to
6 render Limitation 1.5 obvious?

7 MR. SMITH: Objection. Form.

8 THE WITNESS: I said displaying information
9 derived from a 3D model. The 3D model --

10 BY MR. BOWSER:

11 Q. But just the -- I apologize.

12 Go ahead.

13 A. That's fine.

14 Q. I'm sorry. I'm reading back here. Displaying
15 a 3D -- you said displaying information derived from a
16 3D model. So as long as information is derived from a
17 3D model and displayed, then it's sufficient to meet
18 Limitation 1.5; is that your testimony?

19 MR. SMITH: Objection. Argumentative.

20 THE WITNESS: I believe that's correct,
21 although there may be some matters of detail. I don't
22 think any information from -- it may be the case there
23 are 3D models such that displaying information derived
24 from them does not read against 1.5, but I would have to
25 consider that. Certainly, I believe that Quam does.

1 MR. BOWSER: Okay. Let's take a break.
2 Dr. Forsyth and Dan, how long do you think a
3 lunch break, 45 minutes? An hour?
4 MR. SMITH: Let's do this off the record.
5 MR. BOWSER: Yes, 1:29 PM.
6 (A recess was taken.)
7 BY MR. BOWSER:
8 Q. Welcome back, Dr. Forsyth.
9 A. Thank you.
10 Q. During the break, did you speak with counsel at
11 all about your declaration or deposition testimony?
12 A. I did not.
13 Q. Okay. Great. So I want to just close the loop
14 here, a few more questions about Limitation 1.5 in
15 Ground 1. So if you can, please go to paragraph 62.
16 A. Paragraph 62 on page 36, my declaration.
17 Q. Yes, that's correct.
18 A. I'm there.
19 Q. And do you see where it says: Any of these or
20 the many other teachings in Quam and Heller of
21 displaying data is sufficient to address the limitation
22 in question. Did I read that right?
23 A. Yes, you did.
24 Q. So my question is, here you have used the terms
25 "and Heller" in paragraph 62. Do you rely on any

1 portion of Heller in your analysis in claim -- in
2 paragraphs 59 to 61 of your declaration?

3 A. Quam and Heller. The declaration only mentions
4 Heller at that point. It's intended to refer, I
5 believe, to the combination of Quam and Heller. Do I --
6 I mention no other matter in Heller that I rely on in
7 the declaration.

8 Q. So can we turn back to the top of page 35 where
9 you have reproduced Limitation 1.5? Do you see that?

10 A. I'm at the top of page 35.

11 Q. Now, at the end of this limitation, I'm going
12 to read this particular portion, it says: Wherein, the
13 generated roof estimate report is provided for repair
14 and/or constructing the roof structure of the building.
15 Do you see that?

16 A. I see that.

17 Q. Okay. Do you address this particular portion
18 of Limitation 1.5 in your declaration paragraphs 57 to
19 61?

20 A. Do I address that in 57 through 61?
21 Paragraphs 57 --

22 Q. Take a moment.

23 A. I'm sorry.

24 Q. Yeah, I'm sorry. Take a moment if you want to
25 read.

1 A. Paragraphs 57 through 61 make no explicit
2 mention of the purpose of the generated roof estimate
3 report. Apart from a general reference as to the
4 detailed requirements on the contents of the roof
5 estimate report in the first sentence of 57, the -- I
6 believe there is no other reference in those paragraphs
7 to the purpose of the estimate -- the roof estimate
8 report.

9 Q. You have used the word "purpose" to describe
10 the last clause in 1.5, which is: Wherein, the
11 generated roof -- sorry. Let me rephrase it: Wherein,
12 the generated roof estimate report is provided for
13 repair and/or constructing the roof structure of the
14 building. Is that correct that you characterize that as
15 the purpose of the roof estimate report?

16 A. When I use the term "purpose," I'm referring to
17 the reason that the roof estimate report is provided.
18 That's repair and/or constructing the roof structure of
19 the building.

20 Q. In your opinion, what is required for a roof
21 estimate report to be provided for repair and/or
22 construction of the roof structure?

23 A. Can I ask for a clarification? I believe you
24 mean how would I determine whether a roof estimate
25 report is provided for that reason; is that correct?

1 Q. No. What I'm looking or what I want to
2 understand from you is what kind of information is
3 required so that a roof estimate report can be provided
4 for repair and/or constructing the roof structure?

5 A. So the -- the kind of information that would be
6 useful for repair and/or constructing the roof structure
7 would be -- would include geometric information about
8 the roof, areas, angles, lengths, but possibly other
9 information as well.

10 Q. Did you review Heller in its entirety? And,
11 again, this is Exhibit 1,004.

12 A. Did I read Exhibit 1,004 in its entirety? Yes,
13 I did.

14 Q. Heller. Okay.

15 A. I'm sorry, just before we proceed, is the --
16 there is a vacuum cleaner running. Is that creating a
17 problem? I can tell them to stop it.

18 MR. SMITH: I can't hear anything.

19 MR. BOWSER: I can't hear anything.

20 THE WITNESS: All right. Thank you.

21 BY MR. BOWSER:

22 Q. Okay. So can we please turn to page 1 of
23 Heller.

24 A. Page 1 of Heller.

25 Q. I want to focus on the abstract.

1 A. The abstract.

2 Q. So can you please read the abstract for me,
3 please, out loud.

4 A. The central component in the RADIUS
5 model-supported image exploitation paradigm, comma, is
6 the creation of the three-dimensional model that
7 captures the basic geometry of the site under
8 examination, full stop. While many fully automated
9 methods for site model construction show promising
10 results, comma, none are robust or general enough to
11 replace interactive and semiautomatic techniques, full
12 stop. In this paper, comma, we outline the suite of
13 site model construction tools being assembled for the
14 RADIUS program, comma, a sample scenario for the use,
15 comma, and the results of a study to characterize the
16 potential saving of effort they offer.

17 Q. Would you say then that Heller is directed to
18 the creation of a three-dimensional model?

19 A. Among other things, Heller is certainly
20 directed to the creation of a three-dimensional model.

21 Q. Can you please read the first sentence in
22 Section 1 of Heller which is below the heading
23 Introduction.

24 A. The construction and use of 3D models of
25 military and industrial sites will allow revolutionary

1 advances in the speed, comma, confidence, comma, and
2 range of analytical techniques with which an image
3 analyst develops and reports intelligence information,
4 full stop.

5 Q. And then could you please read the next
6 sentence as well in the Section 1.

7 A. The central component of this, start italics,
8 model-supported image exploitation, stop italics,
9 paradigm, comma, is the creation of a three-dimensional
10 model that captures the basic geometry of the site under
11 examination, full stop.

12 Q. So it seems that Heller is focused on creating
13 a three-dimensional model of a site under examination;
14 is that correct?

15 A. Of -- of objects on the site under examination.

16 Q. And the examples that they give are military
17 and industrial sites; is that right?

18 A. The examples they give are military and
19 industrial sites, that's correct.

20 Q. What is your understanding of the meaning
21 captures the basic geometry of the site under
22 examination? And that is -- sorry, I lost my quote --

23 A. Column 1.

24 Q. Oh, yeah, sorry. Yep, you're right. The last
25 sentence that you just read has the words: Creation of

1 a three-dimensional model that captures the basic
2 geometry of the site under examination. What is your
3 understanding of -- of that phrase?

4 A. In the context of Heller or generally?

5 Q. Well, first, in the context of Heller, and then
6 if you'd like, you can talk about general.

7 A. In general, what Heller is attempting to do --
8 what Heller is doing is capturing the geometric
9 structure of objects on the site, including buildings,
10 he does roads, lines of communication, and functional
11 areas. For geometry -- by geometry, he means lengths,
12 distances, angles, sizes, and three-dimensional models.

13 Q. So returning to that phrase that we just talked
14 about, you see how it says: Captures the basic geometry
15 of the site under examination? Well, does basic
16 geometry mean that some details are omitted?

17 A. Does basic geometry mean that some details are
18 omitted? Heller will certainly omit some details.

19 Q. Okay. So what details would be omitted in
20 Heller?

21 A. That -- let's start with a summary answer.
22 That's an involved question. But let me see. If I look
23 at Figure 2 of Heller, which shows an area feature, it
24 seems to be a dam, but some class of area feature, you
25 will notice that he has constructed or the operator has

1 constructed a semicircle but has left out two small
2 geometric features, one sticking in and the other
3 sticking out. That's an example of the detail that
4 might be omitted.

5 Q. So in Figure 2, you are talking about the dam.

6 A. It's a dam, yeah.

7 Q. Yeah. Okay. Looks similar. And you said
8 there were structures that were omitted. Would that be
9 the -- the sort of opening in the -- or whatever the --
10 it looks like there's some terrain difference above the
11 dam; is that correct?

12 A. On the -- let's see. On the straight arc of
13 the dam, on the right-hand side of Figure 2, you will
14 see there's a little piece that sticks out into the
15 terrain and is not modeled by the blue polygon. There's
16 another little piece of terrain that appears to stick
17 into the dam but is not modeled by the blue polygon. In
18 principle, Heller's operator, because the way the system
19 works, could model those things but has chosen not to.

20 Q. Okay. I apologize. I misunderstood what you
21 said things were omitted. When you said things were
22 omitted, you are talking about the actual structure of
23 the dam. And if I understand that, you are talking
24 about essentially the outer perimeter doesn't seem to be
25 modeled, and then there is also the structure on the

1 back end on the straight side; is that right?

2 A. The outer perimeter isn't modeled, and there's

3 the structure on the straight side that isn't modeled.

4 Q. Okay.

5 A. I believe Heller would refer to those as

6 geometric details.

7 Q. So if Heller is going to omit certain features

8 of the site under examination, that's because of the

9 operator's choice to use basic geometry; is that right?

10 A. I believe it depends on what is being modeled.

11 In Figure 2, it's the operator's choice. Heller lists

12 the classes of houses and the classes of roofs that he

13 can model. There may be classes of roof that he cannot

14 model.

15 Q. So can we turn to page 2 of Heller then.

16 A. Page 2 of Heller.

17 Q. Yes. And do you see in Section 2 -- sorry.

18 Let me know when you get there.

19 A. I'm there. Sorry.

20 Q. So do you see under Section 2, it says the site

21 model construction process?

22 A. I do.

23 Q. And can you read the second sentence in

24 Section 2.1? It starts with "such areas."

25 A. Such areas can be used to control which regions

1 in the image are suitable for automatic or semiautomatic
2 model construction, full stop.

3 Q. Actually, why don't you please continue with
4 the next two sentences.

5 A. This allows the model builder to guide
6 automatic or semiautomatic site modeling tools by
7 restricting their regions of application, full stop.
8 Such regions can be initially selected by marking points
9 in an image along the boundaries of the desired regions,
10 full stop.

11 Q. So it seems like now we're, in this particular
12 section at least, focused on modeling and marking points
13 in an image; is that correct?

14 A. This section is focused on modeling perimeters
15 and functional areas in an image, yes.

16 Q. Can we turn to a portion of Heller on pages 3
17 and 4, which is under the heading Section 2.3, Buildings
18 and Structures.

19 A. I am there.

20 Q. Can you please read the first two sentences
21 under Section 2.3.

22 A. To model buildings and structures, comma, the
23 model builder either adds new structures or copies and
24 adjusts structures already in the site model, full stop.
25 To add a structure, comma, the model builder can select

1 from a number of primitive shapes in a library, full
2 stop.

3 Q. Can you also read the last sentence in this
4 particular paragraph that begins with "The RADIUS
5 testbed system."

6 A. It says: The RADIUS testbed system then
7 adjusts the shape, placement, or intention and size of
8 the primitive to better fit the image.

9 Q. So Heller talks about a, quote/unquote,
10 primitive; right? And that is what you're corresponding
11 to the line drawings in the claim; is that right?

12 A. Heller's -- I believe that's correct, yes.

13 Q. And as we see on page 3 where there is
14 different types of primitives, including boxes, houses,
15 how should I pronounce that other -- how do you
16 pronounce that word that begins with a Q?

17 A. I believe it's Quonset, but I could be
18 corrected.

19 Q. Quonset huts. And extrusions and then on
20 page 4 there's another type of primitive called a
21 composite structure. Is that what you see too?

22 A. That's correct.

23 Q. Heller teaches using several, quote/unquote,
24 primitives to model buildings in a two-dimensional
25 image; is that right?

1 A. To model buildings in a set of two-dimensional
2 images.

3 Q. What do you mean by a set of two-dimensional
4 images?

5 A. It doesn't necessarily have only one image.

6 Q. And Figure 2, let's just use that as an
7 example. Is that what you mean by a set of images?

8 A. Actually, no. Figure 2 is the same image
9 before and after the model was built. Figure 4 shows a
10 model being built in pairs of images, left and right,
11 from different viewpoints.

12 Q. So what is your understanding about how Heller
13 aligns the primitives to buildings in an image?

14 A. So Heller's fairly explicit about how he does
15 it and walks through about -- walks through how an
16 operator would do so in Figure 4 and in the text
17 describing Figure 4.

18 Essentially, what the operator does is choose
19 and create a primitive and then move it in one image so
20 as to align it with the view. So we see in Figure 4 a
21 sequence of placing the primitive, aligning one corner,
22 rotating the primitive so as to be better aligned with
23 the one image, and then the second image it follows
24 because it's a 3D representation or a 3D line drawing.
25 It follows the rotation.

1 Then one sets the length and width, but you
2 will see in the right-hand image that the box is too
3 high off the ground. He then changes the elevation and
4 sets the height of the building. So it's an example --
5 it's a sequence of operations where an operator
6 interacts with a representation of the primitive shown
7 as a line drawing on images.

8 Q. So let me ask you a question here about
9 Figure 4. You talked about the rectangle or the
10 primitive being drawn too high, and I'm assuming you are
11 talking about the second row of images on Figure 4? Is
12 that right?

13 A. My intention was the -- sorry -- first, second,
14 third, fourth -- the fifth row. Sorry. Passing from
15 the fifth row to the sixth row.

16 Q. So if the user or the operator is making
17 adjustments on the left-hand side images, are those
18 drawings then automatically -- I'm sorry, are those
19 adjustments automatically replicated on the right side
20 image?

21 A. The adjust -- the right side image is adjusted
22 so that it displays what the right side camera would
23 have seen if the line drawing primitive had been
24 present, and that's done automatically.

25 Q. So you consider Heller then as teaching a

1 modeling process to align primitives to a structure; is
2 that right?

3 A. Among other things, it teaches aligning
4 primitives to a structure.

5 Q. So I want to talk next about Figures 4 and 5
6 and look at those together because there's a portion of
7 Heller that I have a question about here. Let's look at
8 Section 3-point -- sorry, Section 3, Characterization.
9 Do you see that?

10 A. Section 3, Characterization. Yes.

11 Q. And I will read the first sentence here, it
12 says: One of the major goals of this work is to
13 increase the speed and accuracy with which site models
14 can be constructed from current imagery by developing a
15 new family of image understanding, parenthesis, IU, end
16 parenthesis, techniques. An obvious question to ask is
17 just how well we have accomplished this.

18 So they're posing a question to say, look at --
19 or how do we assess what we have achieved; is that
20 right?

21 A. That's correct.

22 MR. SMITH: Objection. Objection to form.

23 BY MR. BOWSER:

24 Q. Can you read the next paragraph, please.

25 A. The next paragraph says: We have chosen to

1 measure the amount of effort expended by the human
2 analyst by the number of mouse clicks and the amount of
3 mouse travel required to achieve a desired answer. We
4 feel that this is a better measure than, for example,
5 actual computation times because it truly reflects the
6 amount of human interaction and does not depend on the
7 speed of the computer being used.

8 Q. Okay. So then Heller mentions an objective to
9 measure the improvements disclosed by Heller; is that
10 right?

11 A. He mentions one objective, yes.

12 Q. Okay. And the objective is to measure the
13 amount of effort expended by the human analyst; is that
14 right?

15 A. That's correct. He wants to measure the effort
16 required to build a model.

17 Q. Can you look at paragraph -- I'm sorry, not
18 paragraph. Excuse me. Can you look at Section 3.1,
19 which is under the heading Instrumenting the RTS?

20 A. I see it.

21 Q. And can you read the first two sentences,
22 please.

23 A. We have developed and installed code that
24 captures low level information from the RTS user
25 interface about individual actions taken by the analyst.

1 Every mouse motion associated with making adjustments to
2 object parameters, comma, and every mouse click is
3 captured into an event history, full stop.

4 Q. So do you understand this section about an
5 evaluation of whether or not Heller's system is making
6 improvements over conventional techniques?

7 A. Heller's assessing whether it is easier for an
8 operator to build a model using his system, but,
9 implicitly, there is the idea that the model needs to be
10 satisfactory. There's no point if one builds a
11 nonsensical model very fast.

12 Q. So what does satisfactory mean in terms of
13 Section 3.0 and 3.1 which are talking about the amount
14 of effort expended by the human analyst? What do you
15 think -- sorry. Let me rephrase.

16 What do you think is satisfactory?

17 A. The -- for Heller, the model would need to
18 align well with both views or all of the available
19 views.

20 Q. So in Section 3 in this second full paragraph,
21 it talks about measuring the amount of effort expended
22 by the human analyst by the number of mouse clicks and
23 the amount of mouse travel required to achieve a desired
24 answer. Do you see that?

25 A. I see that.

1 Q. To make Heller satisfactory, then to use your
2 word, would Heller be focused on reducing the number of
3 mouse clicks and reducing the amount of mouse travel?

4 A. Heller wants to reduce the number of mouse
5 clicks and the amount of mouse travel, but he also wants
6 to produce accurate models.

7 Q. So reducing mouse clicks and reducing mouse
8 travel is not the only goal. Is that what you are
9 saying?

10 A. Yes, that's what I'm saying. He is fairly
11 explicit that he wants accurate models. What he hasn't
12 said in the -- in Section 3 is there is no point in
13 producing the wrong model very quickly. But I believe
14 that would have been a -- something that a POSITA at the
15 time would have understood.

16 Q. So you said that Heller is fairly explicit
17 about making accurate models.

18 A. Uh-huh.

19 Q. What are you using?

20 A. I can go to page 1, Column 1, the creation of a
21 three-dimensional model the captures the basic geometry
22 of the site under examination. He wants to capture the
23 site geometry.

24 I can go to page 3, Column 1 where he says: A
25 semiautomatic system can be invoked to refine the fit of

1 the model. That's text referring to Figure 2 where he
2 shows pretty clearly a model that hasn't been refined.
3 That's the blue triangle and a model that has been
4 refined, as he does in Figure 3.

5 And then, again, page 3, Column 2, he talks
6 about pre- and post-optimization versions of the road.
7 He -- so he does not refer directly to modeling accuracy
8 in the discussion of primitives, but the figures are
9 fairly clear that he wants his models to align with the
10 images.

11 Q. So let's look at the context of when he first
12 talks about characterization in Section 3 and then he
13 introduce Figures 4 and 5.

14 A. Yes.

15 Q. Do you see that Figures 4 and 5 occur after
16 Heller's Section 3 titled Characterization?

17 A. I do.

18 Q. Is it your understanding that -- sorry. Is it
19 your understanding that Figures 4 and 5 relate to
20 Section 3?

21 A. Figures 4 and 5 illustrate the whole paper.
22 They also relate to -- they certainly relate to
23 Section 3, but they also relate to Section 2.3 and 2.3.1
24 and likely other sections as well.

25 Q. And why do you say that Figures 4 and 5 relate

1 to Section 2.3.1 and 2.3.2?

2 A. 2.3.1 describes building a model with a box
3 primitive, with a spelling error on primitive, and
4 describes the process including the Bury Foundation, the
5 Move-W operations, which are referred to in Figure 4.
6 So, for example, triangulate the elevation Move-W on
7 one, two, three, four, five, six, Row 6, Figure 4.

8 2.3.2 talks about modeling a building with an
9 extrusion primitive, and Figure 5 caption says the
10 sequence of steps used to model a complex shape building
11 with an extrusion primitive.

12 Q. So let's talk about Figure 4 first. When --
13 let me strike that.

14 Is it your opinion in Figure 4 that the analyst
15 has to perform each of the above steps to manually model
16 a building?

17 MR. SMITH: Objection. Form.

18 THE WITNESS: Is it my opinion that the analyst
19 has to perform each of the steps shown in Figure 4? No.
20 There may be circumstances where you don't need several
21 of the steps. Figure 4 is intended to demonstrate the
22 steps, not to require them.

23 BY MR. BOWSER:

24 Q. So Figure 4 looks like it shows a progression
25 of steps, does it not?

1 A. It shows a progression of steps used in
2 aligning a particular primitive to a particular pair of
3 images. You might use a different progression of steps
4 with a different pair of images and with a different
5 primitive.

6 Q. So let's look at the fourth row where on the
7 right-hand side it says set the orientation, in
8 parenthesis, rotate-scale. Do you see that?

9 A. I see that.

10 Q. It looks like the primitive is too large for
11 the building. And on the right-hand side, not only is
12 it too large, but it's not covering the building on the
13 right-hand side; is that right?

14 A. I think you are misinterpreting the figure. I
15 think -- let me see. Sorry, I just want to be sure.
16 The original images -- so I believe set the orientation,
17 rotate-scale, refers to what happened between Row 3 and
18 Row 4.

19 Q. So the text -- to me it appears as if the text
20 in Figure 4 is at the bottom of each row of images. So
21 let's look at the first row. Do you see that it says
22 "The original images" is at the bottom of the images;
23 right? And then the second row, the text is: Place the
24 box primitive, parenthesis, drop. That's for the second
25 row; right?

1 A. Wait. I interpret this to mean that the second
2 row shows me what has happened after I placed the box
3 primitive rather than before.

4 Q. Okay.

5 A. So the third row is what happened after I
6 aligned a corner.

7 Q. So past tense, placed the box primitive?

8 A. I believe that's a correct interpretation of
9 the figure.

10 Q. So then in the fourth row, set the orientation,
11 parenthesis, rotate-scale, that is for -- as I mentioned
12 earlier, that seems to me that the primitive is too
13 large for the building and also it is not properly
14 aligned; is that right?

15 MR. SMITH: Objection. Objection, form,
16 argumentative.

17 THE WITNESS: In Row 3, the primitive shown is
18 not oriented with the building. And in Row 4, what's
19 happened is it's been rotated, I believe, in the plane
20 of the first image to be better oriented, and it's been
21 scaled to get bigger.

22 BY MR. BOWSER:

23 Q. So let's look at Figure 4 and then look at
24 Figure 5. Okay? Can we first look at -- you're
25 familiar with Figure 4 on your screen? Not your screen

1 but if you look at Figure 4 right now?

2 A. Yes.

3 Q. Now look at Figure 5.

4 A. I see Figure 5.

5 Q. Is there intended to be a comparison between

6 Figure 4 and Figure 5 such that Figure 5 is an

7 improvement over Figure 4?

8 MR. SMITH: Objection. Form.

9 THE WITNESS: I believe Figure 5 describes a

10 different procedure than Figure 4. Figure 4 shows a

11 sequence of adjustments to manually model a building.

12 Figure 5 shows a sequence of steps to model a

13 complex-shaped building using an extrusion primitive.

14 BY MR. BOWSER:

15 Q. So can we turn to Heller page 9.

16 A. Heller page 9.

17 Q. All right. And do you see the heading that

18 says Conclusions and Future Work?

19 A. I do.

20 Q. Is it your opinion that page 9 contains the

21 summary of Heller?

22 A. It seems very unlikely. It contains Heller's

23 opinion about his conclusions and what he intends to do

24 in the future, but that doesn't mean it's necessarily a

25 summary.

1 Q. So let's look at Section 4, and can you please
2 read the first two sentences in Section 4.

3 A. We have described the manual and semiautomatic
4 facilities available in the, all caps, RADIUS testbed
5 system for modeling common buildings and other
6 structures, comma, and linear and aerial features found
7 of sites of intelligence interest, comma, and have
8 presented a sample scenario of their use, full stop.

9 Sorry. Did you want the whole paragraph or
10 just the first sentence?

11 Q. The next sentence, please.

12 A. We also report on an experiment that shows that
13 a six-fold reduction in effort of delineating linear
14 structures, comma, such as roads, comma, is possible by
15 using the image understanding based semiautomatic
16 facilities available in the RTS, all caps, full stop.

17 Q. So you're interpreting Section 4 not as a
18 summary but as a conclusion of what's disclosed in
19 Heller; is that right?

20 MR. SMITH: Objection. Form.

21 THE WITNESS: Section 4 says its conclusions.

22 BY MR. BOWSER:

23 Q. But it doesn't summarize disclosure.

24 MR. SMITH: Objection. Form.

25 THE WITNESS: Section 4 says nothing about

1 whether it summarizes the disclosure, and I would not
2 regard Section 4 as a summary.

3 BY MR. BOWSER:

4 Q. So the first sentence says: We have described
5 the manual and semiautomatic facilities available, and
6 the past tense there using the word described. Do you
7 see that?

8 A. I see that.

9 Q. So is that recounting what was discussed
10 earlier?

11 MR. SMITH: Objection. Form, argumentative.

12 THE WITNESS: It describes one thing that
13 Heller believes he's done in the earlier material in the
14 paper.

15 BY MR. BOWSER:

16 Q. So let's go back to paragraphs 57, 62. This is
17 the section that we have been talking about in your
18 declaration, please.

19 A. Fifty-seven -- whoops, that's 1,003.
20 Fifty-seven through 62. I'm there.

21 Q. And just to be clear here, you don't rely on
22 Heller to allegedly teach the concept of the generated
23 roof estimate report as provided for repair and/or
24 constructing the roof structure of the building; is that
25 right?

1 MR. SMITH: Objection. Form, argumentative.

2 THE WITNESS: I believe these paragraphs

3 describe teachings in Quam and in the combination of

4 Quam and Heller that address the limitation.

5 BY MR. BOWSER:

6 Q. So you're relying only on Quam in paragraphs 59

7 to 61; is that right?

8 MR. SMITH: Objection. Form, argumentative.

9 THE WITNESS: In paragraphs 59 through 61, I

10 would say in the combination Quam describes.

11 BY MR. BOWSER:

12 Q. But do you rely on any teachings of Heller in

13 paragraphs 59 and 61?

14 A. Paragraphs 59 through 61 describe no explicit

15 teaching in Heller.

16 Q. Can we turn next to page 51 of your

17 declaration, please.

18 A. I'm at page 51.

19 Q. All right. Do you see on page 51 you address

20 Ground 2?

21 A. I see that.

22 Q. And can you please turn to paragraph 100 on

23 page 54.

24 A. Paragraph 100 on page 54. I am at

25 paragraph 100.

1 Q. All right. Can you please read paragraph 100
2 in its entirety.

3 A. Paragraph 100 says: As previously discussed,
4 comma, open inverted commas, the detailed requirements
5 as to the contents of the roof estimate report, close
6 inverted commas, recited in these limitations, open
7 inverted commas, are not entitled to patentable weight,
8 full stop, closed inverted commas. Then there is a
9 reference to NEARMAP-1010, open parens, apostrophe,
10 592FWD, comma, 18, full stop. However, to the extent
11 this limitation is found to be entitled to patentable
12 weight, comma, it is nonetheless rendered obvious by the
13 Heller-Quam-Deaton combination, full stop.

14 Q. Thank you.

15 Do you see the words "these limitations" in the
16 second line of paragraph 100?

17 A. I see that in the second line of paragraph 100,
18 yes.

19 Q. Do you see in line 4 at the beginning of line 4
20 of paragraph 100, it uses the word "this limitation"?

21 A. I see that, yes.

22 Q. So do you see then that you have "these
23 limitations" and "this limitation," both phrases, in
24 paragraph 100?

25 A. I see that. It seems likely there may be a

1 typographical error involved.

2 Q. So what do you mean by "these limitations" in
3 paragraph 100?

4 MR. SMITH: Objection. Asked and answered.

5 THE WITNESS: So in paragraph 100,
6 paragraph 100 is referring to an earlier discussion
7 which discusses limitations that we talked about that
8 are in a series of claims. Then those limitations are
9 not entitled to patentable weight. I believe the proper
10 interpretation is as previously discussed, the detailed
11 requirements recited in these limitations. The writing
12 is a bit sloppy but correct.

13 As previously discussed, and a reference, the
14 detailed requirements were cited in these limitations.
15 That's the list of limitations in the earlier paragraphs
16 we discussed and not entitled to patentable weight. To
17 the extent that this Limitation, i.e. 1.5, is found to
18 be entitled to patentable weight, it is nonetheless
19 rendered obvious.

20 BY MR. BOWSER:

21 Q. So just parsing through this, it seems -- and
22 correct me if I'm wrong here, but it seems as if the
23 first sentence in paragraph 100 is referring to your
24 earlier discussion of Limitations 1.5, 16.3, and 26.3;
25 is that right?

1 A. I believe that's correct.

2 Q. But then the second sentence, which is also
3 below the header of Limitation 1.5, it says "this
4 limitation," and you're referring only to
5 Limitation 1.5; is that right?

6 A. That sentence clause is referring to 1.5.

7 Q. So are you relying on Deaton only if any
8 portion of Limitation 1.5 is given patentable weight?

9 MR. SMITH: Objection. Form.

10 THE WITNESS: I think that may be a legal
11 rather than a technical question. The -- if no aspect
12 of 1.5 is given patentable weight, it's hard to see why
13 one would bother with Deaton. But if some aspect is
14 given patentable weight, then Deaton renders it's
15 obvious.

16 BY MR. BOWSER:

17 Q. So I wasn't asking a legal question. I was
18 asking you to explain your reliance on Deaton with
19 respect to the second sentence in paragraph 100. Can
20 you please read that again?

21 A. The second sentence in paragraph 100?

22 Q. Yes, please.

23 A. However, to the extent this limitation is found
24 to be entitled to patentable weight, it is nonetheless
25 rendered obvious by the Heller-Quam-Deaton combination,

1 full stop.

2 Q. There seems to be a condition in that sentence
3 with the words "to the extent this limitation is found
4 to be entitled to patentable weight"; is that right?

5 A. I believe that's correct, yes.

6 Q. And then the remaining portion of this sentence
7 follows that condition.

8 MR. SMITH: Objection, form.

9 THE WITNESS: I'm sorry?

10 MR. SMITH: No, sorry. It was objection, form.

11 THE WITNESS: I believe that's correct, yes.

12 BY MR. BOWSER:

13 Q. So let's turn to paragraph 93, please, where
14 you discuss Deaton. Sorry, where you describe Deaton.

15 A. Paragraph 93.

16 Q. Yes, let me know when you're there.

17 A. I'm at paragraph 93.

18 Q. Can you please read the first two sentences of
19 paragraph 93.

20 A. Deaton describes, open inverted commas, a roof
21 inspection system, closed inverted commas, that
22 generates and outputs various reports, full stop. In
23 caps, NEARMAP 1,006, comma, open square, 0010, close
24 square, full stop. For example, comma, Deaton describes
25 an, open inverted commas, project report, closed

1 inverted commas, that, open inverted commas, provides
2 specification details and work items for repairing or
3 replacing the infrastructure, closed inverted commas,
4 open parens, the roof, closed parens, open inverted
5 commas, in accordance with the conditions identified,
6 full stop, close inverted commas.

7 Q. And then you also cited paragraph 107 at the
8 end of that second sentence; correct?

9 A. Yes, that's correct.

10 Q. So the first sentence in paragraph 93 says that
11 Deaton generates and outputs various reports; is that
12 right?

13 A. That's what the sentence says.

14 Q. And in the second sentence, you identify a
15 specific report that is the project report; is that
16 right?

17 A. That's correct.

18 Q. Do you consider Deaton's project report as
19 teaching the claimed roof estimate report in
20 Limitation 1.5?

21 A. You need to refer me to where in the
22 declaration I have an opinion on that point. Because it
23 seems like something where I would need to be accurate.

24 Q. So let's go to paragraph 101 on page 54. Do
25 you see that?

1 A. Paragraph 101, page 54.

2 Q. Yep.

3 A. I'm there.

4 Q. Do you see on line 3 of paragraph -- let's jump
5 up to the second sentence that begins on line 2. It
6 says: For example, Deaton describes a, quote, project
7 report, end quote, that, quote, provides specification
8 details and work items for repairing or replacing the
9 infrastructure, end quote.

10 And it's a similar discussion about what you
11 read in paragraph 93. Did I read that correctly?

12 A. Yes, you read it correctly.

13 Q. And then the next sentence in paragraph 101,
14 you talk about the project report again and what it can
15 include. Do you see that?

16 A. I see that.

17 Q. So my question to you is: Do you consider
18 Deaton's project report as corresponding to the roof
19 estimate report in Limitation 1.5?

20 A. Corresponding? Deaton's project report is a
21 detailed report of numerical values and areas that
22 provide details and work items for repairing the
23 infrastructure. I would regard Deaton's report as being
24 like or a disclosure of a roof estimate report provided
25 for repair or constructing and containing slope, area,

1 and lengths. So I think the answer is corresponding
2 yes.

3 Q. Sorry. So let's look at Limitation 1.5 again.
4 It says at the top: Generating and outputting a roof
5 estimate report using a report generation engine, comma,
6 and then if we skip forward to the last clause, it says:
7 Wherein the generated roof estimate report is provided
8 for roof repair and/or constructing the roof structure
9 of the building; is that correct?

10 A. That's correct.

11 Q. So can you please look -- well, we have read
12 over paragraph 101. Can you please read paragraph 102.
13 Just read it to yourself.

14 A. I have read paragraph 102.

15 Q. Do you refer to any other type of report in
16 Deaton in paragraphs 100 to 102 in your analysis of
17 Limitation 1.5?

18 MR. SMITH: Objection. Form.

19 THE WITNESS: Sorry. Any other report other
20 than --

21 BY MR. BOWSER:

22 Q. The project report.

23 A. Deaton's project report or the roof estimate
24 report? Okay. The --

25 Q. Sorry. Let's go back to page 93. I want to

1 just make this easy. I'm sorry, not page 93,
2 paragraph 93. Okay? Do you see the first sentence that
3 indicates Deaton describes a -- sorry, Deaton describes,
4 quote, a roof inspection system, unquote, that generates
5 and outputs various reports, period. Do you see that?

6 A. Yes, I see that.

7 Q. Let's go back to paragraphs 100 to 102, please.

8 A. 100 to 102.

9 Q. Do you describe any report other than the
10 project report of Deaton in your analysis of
11 Limitation 1.5 in paragraphs 100 to 102?

12 A. I do not explicitly describe any other than the
13 project report, but I note that the declaration says the
14 roof inspection system generates and outputs various
15 reports. And I then say, for example, Deaton describes
16 a project report. So implicit is the idea that there
17 may be other reports in Deaton.

18 Q. Do you describe any of those other reports in
19 your analysis in paragraphs 100 to 102?

20 A. There is no explicit description of those
21 reports.

22 Q. So can we turn to paragraph 94.

23 A. Paragraph 94.

24 Q. Yes. And it's under the heading The
25 Combination of Heller, Quam, and Deaton. Do you see

1 that?

2 A. I see that.

3 Q. And I'm going to read the sentence here in
4 paragraph 94, and let me know if I have said it
5 accurately. In the combination, the combined system of
6 Heller and Quam is modified to produce a roof estimate
7 report as taught by Deaton based on the site models
8 described in Heller and Quam. Did I read that
9 correctly?

10 A. You read that correctly.

11 Q. In paragraph 94, what do you mean by the word
12 "produce"?

13 A. The combined system of Heller and Quam is
14 modified to produce a roof estimate report -- I can give
15 examples. I certainly haven't attended to the specific
16 meaning of the word, which I think is the usual meaning,
17 which is you would take the three-dimensional model
18 produced -- three-dimensional model that Heller and Quam
19 make, and from that, you would compute numbers, which
20 numbers would form a roof estimate report.

21 Q. So are you using the word "produce" in
22 paragraph 94 as a synonym for the word "generate" in the
23 claim?

24 MR. SMITH: Objection. Form.

25 THE WITNESS: Synonym? No, because producing

1 might also involve the other steps. So in 1.5 -- sorry.
2 I need the wording. In --
3 BY MR. BOWSER:
4 Q. Sorry for the interruption, but that's right
5 above paragraph 100. You can look at the wording.
6 A. You generate and output. I believe produce
7 would have in its scope both generating and outputting.
8 Q. So produce means generate and output, is that
9 what you are saying?
10 A. I believe its usual meaning would be to
11 generate and -- I believe a POSITA at the time would
12 have understood that -- or I believe that I intended
13 that produce mean construct and as required output.
14 Q. Why did you just use the word "construct"?
15 A. Because I didn't want to try and explain the
16 word produce using the word produce.
17 Q. So I'm just trying to understand, because you
18 or counsel, one of you, decided to use the word produce.
19 I'm trying to figure out what you're -- what you mean by
20 produce here in this paragraph.
21 A. Compute the contents of and then supply to as
22 required. Why supplied to or output, because there's
23 not much point in producing something that you don't
24 output.
25 Q. So just to be -- to close the loop on this, you

1 are saying that produce is more than just generating; is
2 that right?

3 MR. SMITH: Objection. Form, argumentative.

4 THE WITNESS: I believe here, producing would
5 involve actually producing the report and -- sorry.
6 Actually creating the report and also making it
7 available to someone's -- as required or to some process
8 as required.

9 BY MR. BOWSER:

10 Q. So to summarize, produce, according to your
11 understanding as used in paragraph 94, means create and
12 make available; is that correct?

13 A. Create and make available as necessary.

14 Q. As necessary. Okay.

15 Any other qualifications here?

16 All right. Let's see --

17 MR. SMITH: Hold on just a second. I don't
18 believe he was finished with his answer on that. I
19 think you cut the end of that off.

20 THE WITNESS: I said produce and make available
21 as necessary. Then the question was any other
22 qualifications? Quite likely, some qualification might
23 be required for accuracy here. There -- let me see.
24 There is no particular reason to generate something that
25 is never looked at under all circumstances. Implicitly,

1 if you are going to generate, you are going to do some
2 form of making it available. But I don't immediately
3 see any further qualifications that are correct or
4 helpful, but I do believe they might exist.

5 BY MR. BOWSER:

6 Q. So just so that I'm clear on paragraph 94,
7 you're producing the roof estimate report based on the
8 site models described in Heller and Quam; is that
9 correct?

10 A. The report is based on the site models
11 described in Heller and Quam. Yes, that's correct.

12 Q. So the roof estimate report is produced as a
13 result of the site models that are created in Heller and
14 Quam; is that right?

15 A. I think the roof estimate is -- report is
16 produced from rather than as a result of this site model
17 described in Heller and Quam.

18 Q. So even though Deaton doesn't use the words
19 roof estimate report, you're saying that Deaton's
20 project report corresponds to the roof estimate report;
21 is that right?

22 A. I believe we have discussed that question, and
23 I don't want to accidentally contradict myself from
24 failure of memory on the discussion. But I believe that
25 the project report in Deaton corresponds with the roof

1 estimate report in '737.

2 Q. Right. I'm not trying to get you to say
3 anything inconsistent. I'm just trying to parse this
4 because you're using language of some references but
5 then you are using claim language in paragraph 94.

6 So my question is: If we were to use the
7 language of Deaton rather than the claim language, it
8 would read: The combined system of Heller and Quam is
9 modified to produce a project report as taught by Deaton
10 based on the site models described in Heller and Quam;
11 is that correct?

12 MR. SMITH: Objection. Form, argumentative.

13 THE WITNESS: To produce a project report, yes.
14 So I'm not comfortable with that formulation, because it
15 assumes that a roof estimate report and a project report
16 are exactly equivalent. We have said that they're
17 corresponding ideas, but that's not the same thing.

18 BY MR. BOWSER:

19 Q. Okay. Let's look at paragraphs 100 to 102
20 again.

21 A. 100 to 102.

22 Q. Okay.

23 A. I'm at those paragraphs.

24 Q. Are these the portions of your declaration
25 where you analyze Limitation 1.5?

1 MR. SMITH: Objection. Form.

2 THE WITNESS: I believe there are other

3 portions of the declaration where I analyze 1.5 as well.

4 BY MR. BOWSER:

5 Q. Are paragraphs 100 to 102 the portions of your

6 declaration where you analyze Limitation 1.5 for

7 Ground 2?

8 A. For Ground 2, I believe that that is correct,

9 yes.

10 Q. Do you recall we discussed earlier how in

11 paragraphs 100 to 102 you don't identify any other

12 report in Deaton other than Deaton's project report; is

13 that correct?

14 MR. SMITH: Objection. Form, mischaracterizes

15 prior testimony.

16 THE WITNESS: In our previous discussion of

17 this, I said that I explicitly referred to Deaton's

18 project report, but also, that I used that as an example

19 and noted that Deaton generates an upwards -- various

20 reports.

21 BY MR. BOWSER:

22 Q. Let's look at paragraphs 100 to 102, please.

23 A. I'm sorry. We have been running for about an

24 hour. It would be nice if we hit a natural point.

25 MR. SMITH: I was going to say we have been --

1 we are about three minutes over an hour if you want to
2 take a ten-minute break.

3 MR. BOWSER: Sure.

4 THE WITNESS: Whenever is natural, but it would
5 be nice.

6 MR. SMITH: I think let's go ahead and do it
7 now.

8 (A recess was taken.)

9 BY MR. BOWSER:

10 Q. Welcome back, Dr. Forsyth.

11 A. Thank you.

12 Q. Did you speak with counsel at all during the
13 break?

14 A. I did not.

15 Q. So I want to turn to Deaton if you can pull up
16 Deaton, please. And let's go to paragraph 99. I want
17 to talk about this just because it provides some context
18 for the portions that you have cited.

19 A. 1,006, paragraph 99, I have that paragraph.

20 Q. And do you see that the first sentence of
21 paragraph 99 refers to Figure 9 of Deaton?

22 A. I see that, yes.

23 Q. Okay. Would you please take a look at
24 Figure 9.

25 A. I see Figure 9 of Deaton.

1 Q. And do you see data reporting module 906 in
2 Figure 9?
3 A. I do.
4 Q. Now can you please turn to paragraph 104.
5 A. Of Deaton or of my declaration?
6 Q. Sorry. Of Deaton.
7 A. I'm at paragraph 104.
8 Q. So paragraph 104 says: Data reporting module
9 906 generates reports based on, in part, the data
10 collected during an inspection of the infrastructure.
11 Do you see that?
12 A. I see that.
13 Q. Can you please go to paragraph 105.
14 A. I'm at paragraph 105.
15 Q. And paragraph 105 says: Although reports may
16 be customized, in general, there are four general
17 categories of reports that may be generated by data
18 reporting module 906. Do you see that?
19 A. I see that.
20 Q. In the next sentence in paragraph 105, Deaton
21 specifically describes the four types of reports. He
22 describes an assessment report, a project report, a
23 proposal report, and a maintenance report. Do you see
24 that?
25 A. I see that.

1 Q. So if we go back to paragraph 101 of your
2 declaration, please.

3 A. Mm-hmm.

4 Q. And you said in the first sentence and I will
5 read that: In the combination, Deaton describes a roof
6 inspection system that generates and outputs various
7 reports. Do you see that?

8 A. I see that.

9 Q. Are the various reports, that term as you used
10 in paragraph 101, are you referring to the assessment
11 report, project report, proposal report, and maintenance
12 report as discussed in paragraph 105?

13 A. Yes, but modified by the fact that in 105, it
14 says reports may be customized. So he admits the
15 possibility of other classes of report but says that
16 there are four general categories of report.

17 Q. So there are four general categories of report
18 with the option of a customized report in paragraph 105.
19 I think we can agree to that; right?

20 A. Yes, that's correct.

21 Q. So four reports plus customized report. Can
22 you please tell me in paragraph 101 which specific type
23 of report you identified in the second and third
24 sentences of paragraph 101 of your declaration?

25 A. So paragraph 101 gives an example of a project

1 report that provides specification details and work
2 items for repairing or replacing the infrastructure.
3 The -- so that is a project report. The paragraph
4 states that it's a project report.

5 Q. And the last sentence in paragraph 101, what
6 specific report do you mention in paragraph 101 on the
7 last sentence?

8 A. The paragraph -- sorry, paragraph 101 in the
9 last sentence mentions a project report.

10 Q. Do you mention an assessment report in
11 paragraph 101?

12 A. Do I mention an assessment report in
13 paragraph 101? Only implicitly in the reference to
14 various reports. There's no explicit mention.

15 Q. Do you mention a proposal report in
16 paragraph 101?

17 A. There's no explicit mention of proposal reports
18 in paragraph 101.

19 Q. Do you mention a maintenance report in
20 paragraph 101 of your declaration?

21 A. There is no explicit mention of a maintenance
22 report in paragraph 101; although, again, I refer you to
23 the fact that it -- I mention Deaton outputs various
24 reports.

25 Q. Do you mention a customized report in

1 paragraph 101 of your declaration?

2 A. I do not explicitly mention a customized
3 report, but I do mention that Deaton outputs various
4 reports.

5 Q. So in Ground 2 of your declaration, is your
6 analysis of Limitation 1.5, is that contained in
7 paragraphs 100 to 103?

8 MR. SMITH: Objection. Form.

9 THE WITNESS: Ground 2, Claim 1.5, you're
10 asking is -- are my conclusions in 100 to 103, I believe
11 that's where I describe -- where I describe the prior
12 art in Heller, Quam, and Deaton against 1.5. I may have
13 misunderstood the question. You might want to repeat
14 it.

15 BY MR. BOWSER:

16 Q. In Ground 2 of your declaration, in the portion
17 of ground -- or the portion of your declaration -- let
18 me strike that.

19 In the portion of your declaration addressing
20 Ground 2, do you address Limitation 1.5 in paragraphs
21 100 to 103?

22 A. In Ground 2, I address Limitation 1-point -- I
23 certainly address Limitation 1.5 in paragraphs 100 to
24 103.

25 Q. Do you map the prior art or Limitation 1.5 in

1 any other paragraphs other than paragraphs 100 to 103?

2 A. I -- are we talking about Ground 2 or in
3 general?

4 Q. Ground 2.

5 A. Ground 2. I'm not aware from memory that I
6 refer to -- I mapped the prior art in any other
7 paragraphs to 1.5. It's possible, but memory does not
8 offer any other paragraphs.

9 Q. All right. Let's turn to paragraph 106 of
10 Deaton, please.

11 A. Of Deaton 106. Paragraph 106.

12 Q. Yes, can you please read the first two
13 sentences of paragraph 106.

14 A. It reads: An assessment report may include a
15 summary of the inspected infrastructure and a listing of
16 the deficiencies identified during inspection data
17 collection, full stop. Such a report may include a
18 visual depiction, such as a map or other composition of
19 the inspected infrastructure, full stop.

20 Q. So would it be your understanding then that
21 Deaton describes the assessment report as including a
22 map of the inspected infrastructure?

23 A. He says it may include a map.

24 Q. And paragraph 107 deals with the project report
25 of Deaton. Is that your understanding?

1 A. That's what paragraph 107 says it deals with.

2 Q. Do you see anything in paragraph 107 regarding
3 a visual depiction of the site under examination?

4 A. I would have to reread the paragraph just to be
5 careful.

6 Q. Please do.

7 A. So there is no explicit mention in the
8 paragraph of visual information in the report, but a
9 POSITA at the time would have known that for some kinds
10 of defective infrastructure item, it can be more helpful
11 to show a picture of the defect than it is to produce
12 text. So there may be an implicit reference to visual
13 material here.

14 Q. Do you see the second sentence in paragraph 107
15 that says: The project report links the inspection data
16 to either generic or specific manufacturer products and
17 prices?

18 A. I see that.

19 Q. Let me jump down to the sentence that is in
20 line 10. It says: In the case of replacement of an
21 infrastructure item, data reporting module 906 may use
22 the inspection data to provide the user with a
23 predefined list of manufacturers' products that may be
24 used for replacement. I'm reading on, it says: The
25 user selects a desired product from the list and assigns

1 a quantity to that product. Quantities could, for
2 example, include counts, e.g. a number of roof drain
3 covers, lengths, e.g. linear feet of metal flashing, or
4 areas, e.g. square footage of roofing membrane. Do you
5 see those portions?

6 A. I see those portions.

7 Q. So is Deaton's project report a list of work
8 items or products that may be selected by the user?

9 MR. SMITH: Objection to form.

10 THE WITNESS: Deaton's project report certainly
11 can contain such a list, and it's described as
12 containing such a list.

13 BY MR. BOWSER:

14 Q. So you mentioned earlier about you didn't have
15 any specific experience with creating a roof estimate
16 report other than asking in two instances someone to
17 repair your roof; is that right?

18 A. That's correct. Yes.

19 Q. Okay. So have you seen a roof estimate report
20 before?

21 A. I've seen the figures in '737 and in various
22 related patents, but that's the extent of my experience
23 of roof estimate reports.

24 Q. So the related patents, are you talking about
25 EagleView and Pictometry patents?

1 A. I think there is a patent with the No. '880
2 that may have a roof estimate report in it or some
3 summary description of one. I think there are a couple
4 of other patents either in suit or that were discussed
5 as prior art, but my acquaintance with roof estimate
6 reports is very small in passing.

7 Q. So as a POSITA, what type of information do you
8 think would be contained in a project report where it
9 identifies a list of products that the roofer or repair
10 person could select?

11 MR. SMITH: Objection. Form.

12 THE WITNESS: I believe 107 describes a project
13 report that would have in it a list of products. Those
14 products might include products related to the surface
15 of roofs. It might include products related to
16 structure. It might include products related to
17 constructing roofs. The 107 gives examples including
18 drain covers, metal flashing, and roofing membrane.

19 BY MR. BOWSER:

20 Q. The two sentences that you just referred to are
21 the user selects a desired product from the list and
22 assigns a quantity to that product, period. Quantities
23 could, for example, include counts, e.g. a number of
24 roof drain covers, parenthesis, end parenthesis,
25 lengths, e.g. linear feet of metal flashing, or areas,

1 e.g. square footage of roofing membrane. Is that what
2 you are referring to?

3 A. I'm referring to that sentence. You asked me
4 for examples of things that a POSITA might expect to be
5 on a list of products. And I used the roof drain
6 covers, the metal flashing, and the roofing membrane as
7 examples.

8 Q. And the quantities of those products are
9 identified in Deaton's project report; is that your
10 understanding?

11 MR. SMITH: Objection. Form.

12 THE WITNESS: I believe the user assigns the
13 quantity to the product. The quantities -- Deaton
14 doesn't describe his project report as containing
15 quantities.

16 BY MR. BOWSER:

17 Q. So if we go back up to the second sentence of
18 the paragraph 107, it says: The project report links
19 the inspection data to either generic or specific
20 manufacturer products and prices; is that right?

21 A. That's what it says.

22 Q. So the project report, it seems to me, has a
23 list of items that the user could select; is that right?

24 A. It contains a list of items that the user could
25 select, but there is no evidence that it's limited to a

1 list of items that the user could select.

2 Q. So if you refer to paragraph 107, again, in the
3 first sentence, can you please read that.

4 A. The first sentence reads: A project report
5 provides specification details and work items for
6 repairing or replacing the infrastructure in accordance
7 with the conditions identified in the assessment report.

8 Q. So is it your understanding that the project
9 report is based on the, quote, conditions identified in
10 the assessment report?

11 A. It's in -- provide specification details and
12 work items for repairing or replacing the infrastructure
13 in accordance with the conditions identified in the
14 assessment report. The project report certainly will
15 use information in the assessment report. The -- is it
16 based on -- well, if we use information in the
17 assessment report, the question is: Could there be a
18 project report without an assessment report? I believe
19 paragraph 107 suggests that there might, but I think a
20 project report is based on whatever is available in an
21 assessment report.

22 Q. Sorry. Let me get that. You said that a
23 project report could be created without an assessment
24 report; is that right?

25 A. So I believe there's support in the paragraph

1 for that. I'm trying to puzzle it out. The -- it's
2 certainly the case that the project report will tell
3 you -- provide specification details and work items for
4 repairing in accordance with conditions identified in
5 the assessment report. But if we are talking about
6 replacing infrastructure, it's possible that you may be
7 able to provide specification details or work items
8 without needing an assessment report. That question
9 would require closer analysis.

10 Q. So you just said it is possible. Is there any
11 disclosure in paragraph 107 that you are aware of that
12 actually supports your statement that it is possible
13 that a project report could be made without an
14 assessment report?

15 MR. SMITH: Objection. Form.

16 THE WITNESS: Well, I think a POSITA reading
17 the first sentence would know that there may be some
18 circumstances where replacing infrastructure does not
19 require assessment of the existing infrastructure and,
20 as a result, would assume that it would be all right
21 without an assessment report. But I think that's a
22 delicate point.

23 BY MR. BOWSER:

24 Q. What do you mean by a delicate point?

25 A. I'm relying on what I believe a POSITA would

1 have understood at the time as opposed to a specific
2 sentence saying that you can have a project report
3 without an assessment report.

4 Q. Let's go back to paragraph 106. And let's
5 cover that again. This deals with the assessment
6 report?

7 A. That's correct.

8 Q. And I will read this. It says: An assessment
9 report may include a summary of the inspected
10 infrastructure and a listing of the deficiencies
11 identified during inspection data collection. Do you
12 see that?

13 A. I see that.

14 Q. The second sentence says: Such a report may
15 include a visual depiction, such as a map or other
16 composition, of the inspected infrastructure, period.
17 Do you see that?

18 A. I see that.

19 Q. Are you aware of Deaton having any disclosure
20 where an assessment report is created without a physical
21 inspection of the property in question?

22 A. I'm not able to point you to such disclosure
23 from memory, but I'm not willing to rule out the
24 possibility that it's there without a more detailed
25 read.

1 Q. So when you prepared your declaration, did you
2 read the entirety of the Deaton?

3 A. I did.

4 Q. So can we go to paragraph 10.

5 A. Paragraph 10 of Deaton?

6 Q. Yes. Okay. So this is a summary of Deaton.
7 Do you see that?

8 A. I see that. Rather, I see paragraph 10.

9 Q. And paragraph 10, why don't you read over
10 paragraph 10, and then I'm going to ask you a question
11 or two about that.

12 A. You want me to read it out loud or --

13 Q. You can read it to yourself.

14 A. Okay. I have read it.

15 Q. Do you see in the paragraph 10, it talks about
16 a second location being remote from the first location?

17 A. I see that it refers to that, yes.

18 Q. And do you see that the system collects roof
19 inspection information at the second remote location?

20 A. Are you referring to the second sentence? The
21 portable computing device collecting --

22 Q. Yes.

23 A. Yes, I see that.

24 Q. And then if you go to the third sentence, it
25 says: The roof inspection information collected by at

1 least one auxiliary component includes geographic
2 positions defining a geometric shape of at least a
3 portion of the roof and a geographic position of at
4 least one component associated with the roof with
5 respect to the portion of the roof.

6 What they're talking about here in paragraph 10
7 is going on-site and collecting roof inspection
8 information on-site. Is that your understanding?

9 MR. SMITH: Objection. Form, argumentative.

10 THE WITNESS: Paragraph 10 is describing an
11 embodiment to the roof inspection system. And within
12 the embodiment described in paragraph 10, you appear to
13 go on-site and collect information.

14 BY MR. BOWSER:

15 Q. So let's go to paragraph 108.

16 A. Of Deaton?

17 Q. Yes. And I will read that. It says: A
18 proposal report summarizes the conditions observed in
19 the assessment report, work items identified in the
20 project report, and pricing information. The pricing
21 information may be totaled to provide a project estimate
22 for a prospective client. Did I read that correctly?

23 A. You read that correctly.

24 Q. So paragraph 108 says: Work items identified
25 in the project report. Do you see that?

1 A. I see that.

2 Q. Does that mean that the project report is
3 simply a list of items?

4 MR. SMITH: Objection. Form, argumentative.

5 THE WITNESS: No, it doesn't. It means that
6 the proposal report summarizes such work items as
7 happened to have been identified in the project report.

8 BY MR. BOWSER:

9 Q. But the project report contains work items; is
10 that right?

11 MR. SMITH: Same objection.

12 THE WITNESS: The project report in 107 is
13 described as providing specification details and work
14 items.

15 BY MR. BOWSER:

16 Q. Paragraph 108 says and I quote: Work items
17 identified in the project report, end quote; is that
18 right?

19 A. 108 says: Work items identified in the project
20 report, yes.

21 Q. So does that mean that work items are contained
22 in the project report?

23 MR. SMITH: Objection. Form.

24 THE WITNESS: It means that work items may be
25 identified in the project report.

1 BY MR. BOWSER:

2 Q. Explain to me how you're qualifying it as
3 saying "may."

4 A. Well, if the --

5 Q. What's the basis for that.

6 A. The proposal report summarizes the -- so the
7 wording of 108 is the proposal report summarizes the
8 conditions observed in the assessment report, comma,
9 work items identified in the project report. It doesn't
10 require that the project report contain work items or be
11 limited to work items. All it says is, if they're
12 there, they will appear in the proposal report.

13 Q. So let's go to the first sentence of
14 paragraph 107. And I can read that out. It says: A
15 project report provides specification details and work
16 items for repairing or replacing the infrastructure in
17 accordance with the conditions identified in the
18 assessment report. Do you see that?

19 A. I see that.

20 Q. Where do you see in paragraph 107 that work
21 items are optional?

22 MR. SMITH: Objection. Form, argumentative.

23 THE WITNESS: 107 says: A project report
24 provides specification details and work items. To me at
25 least, I read that to mean that the project report may

1 contain only specification details and omit work items.

2 BY MR. BOWSER:

3 Q. So the word "and" doesn't require both terms
4 there? It doesn't require specification details and
5 work items?

6 MR. SMITH: Objection. Form.

7 THE WITNESS: I don't think so. I -- 107
8 offers me things that appear in the project report. But
9 it doesn't require that the project report have all of
10 these items in it.

11 BY MR. BOWSER:

12 Q. Can you please explain what you see in
13 paragraph 107 that provides support for your
14 interpretation that specification details or work items
15 are not contained in the project report?

16 MR. SMITH: Objection. Form, asked and
17 answered.

18 THE WITNESS: So there is -- the first two
19 sentences tell me properties of the project report. The
20 first sentence tells me the project report provides
21 specification details and it provides work items.

22 The next sentence says: The project report
23 links the inspection data to generic or specific
24 products and prices. I read this as a list of
25 properties that a project report may have.

1 So, for example, the project report might
2 consist of specification details and links to inspection
3 data but no work items. It may contain specification
4 details and work items, or it may contain specification
5 details, work items, and links to generic or specific
6 manufacturer products or prices.

7 BY MR. BOWSER:

8 Q. So just so that I understand the use of the
9 word "and," you're interpreting that to mean optional;
10 is that right?

11 A. I'm interpreting that to mean optional here. I
12 believe that's an accurate reading of the document.

13 Q. Let's turn to paragraphs 119 and 120 of Deaton,
14 please.

15 A. 119 and 120.

16 Q. Yes. And you know what, let me -- before you
17 go there, can you please take a look at Figure 10,
18 because paragraphs 119 and 120 describe Figure 10 of
19 Deaton. Do you see that?

20 A. I have Figure 10 in front of me, and I'm at
21 119, 120.

22 Q. So do you see in paragraph 119, the first
23 sentence, it says: Figure 10 depicts a flow diagram
24 which may be followed for the inspection of
25 infrastructure components such as a roof. Do you see

1 that?

2 A. I see that.

3 Q. What is your understanding of the term
4 "inspection" there?

5 A. Flow diagram which may be followed for
6 inspection of infrastructure components. I -- what is
7 my understanding of the term? I believe a POSITA at the
8 time would have understood it to mean that one, in some
9 way, takes a look at or investigates some object for the
10 extent to which it meets a set of requirements.

11 Q. Is the inspection in Deaton, is it done
12 remotely?

13 A. Is the inspection in Deaton done remotely? I
14 believe in paragraph 9 there's support for the idea that
15 it is. Because paragraph 9 reports -- describes a
16 portable computing device that is configured for
17 collecting inspection data at a third location according
18 to inspection plan. The implication being that one
19 collects the data at one location and actually engages
20 in the inspection somewhere else.

21 Q. Wait. I'm sorry, I'm having a hard time
22 following that. You said that the third location is not
23 on-site?

24 A. So paragraph 9 describes a portable computing
25 device -- this is the first, second, third, fourth

1 sentence of paragraph 9 of Deaton -- that is configured
2 for collecting inspection data at a third location,
3 according to an inspection plan. So the device is used
4 to collect the data according to an inspection plan, but
5 the implication is that the inspection itself occurs
6 somewhere else.

7 Q. Sorry. The inspection -- it occurs somewhere
8 else. Where?

9 A. In this case, portable computing device, for
10 determining geographic position -- at -- as I read this
11 paragraph, it occurs at the client because the portable
12 computing device, last sentence of the paragraph, stores
13 the inspection data and transmits the inspection data to
14 the client and receives an inspection plan from the
15 client.

16 So the inspection data is collected, but the
17 inspection itself, as far as I can tell, occurs at or on
18 the client.

19 Q. Let's go through this here because I don't
20 understand where you are getting this. Paragraph No. 9.
21 Okay. The server is located at a first location, and
22 the client is located at a second location. Do you see
23 that, the second sentence?

24 A. Yes.

25 Q. The client includes a client server

1 communications interface for communication with the
2 server.

3 A. I see that.

4 Q. The portable computing device is configured for
5 collecting inspection data at a third location according
6 to an inspection plan, the third location being remote
7 from the first and second locations. Do you see that?

8 A. I see that.

9 Q. And earlier, it mentioned about how the server
10 is at the first location and the client is at the second
11 location. Do you recall that?

12 A. Yes.

13 Q. So the portable computing device is located at
14 a third location that's remote from the first and second
15 locations. In other words, the portable communication
16 device is remote from the server and the client; is that
17 your understanding?

18 A. That's correct, yes.

19 Q. So isn't the portable computing device
20 collecting the inspection data?

21 A. The --

22 MR. SMITH: Object to form.

23 THE WITNESS: The portable computing device is
24 explicitly described as collecting inspection data
25 according to an inspection plan. It then returns that

1 data to the server further down in the paragraph. And
2 the inspection itself occurs at a different location.
3 The inspection is not in the device. The device
4 collects inspection data.

5 BY MR. BOWSER:

6 Q. Where do you see that the inspection is
7 performed somewhere else?

8 A. Well, the portable computing device, last
9 sentence, further includes a bi-directional
10 communications interface for transmitting the inspection
11 data to the client. So the device collects the data,
12 according to an inspection plan, and then provides the
13 data. That implies that the inspection is occurring
14 over at the client or possibly at the server depending
15 on.

16 Q. Do you see -- let me see, one, two, three,
17 four, five, six, seven, eight, nine, ten, 11, 12 -- 13
18 lines down, I'm going to read a portion here. It says:
19 The geographic position of the portable computing device
20 forms at least a portion of the inspection data
21 collected according to the inspection plan.

22 A. I see that.

23 Q. So how can the inspection occur outside of the
24 on-site location?

25 MR. SMITH: Object to form.

1 THE WITNESS: The portable computing device
2 collects inspection data, provides it to something else,
3 and the actual inspection occurs off-site. There are
4 two concepts here, one is the data used for the
5 inspection and the other is the actual inspection.

6 BY MR. BOWSER:

7 Q. So to paraphrase, you are saying there are two
8 concepts here: There's the data collection process and
9 then there's the inspection process; is that accurate?

10 MR. SMITH: Objection. Mischaracterizes prior
11 testimony.

12 THE WITNESS: I said that there is inspection
13 data, right, which is collected by the portable
14 computing device according to the inspection plan, and
15 then there is the actual inspection.

16 BY MR. BOWSER:

17 Q. And where in paragraph 9 are you referring to,
18 to support this concept that the inspection occurs
19 off-site?

20 A. So, well, the strongest support comes from the
21 fact that the inspection data is being collected, and
22 then it's being provided to the client over a
23 communications interface. If I look further down on
24 paragraph 10, there is further support for this idea
25 because I have an auxiliary component for collecting

1 roof inspection information at a remote location. The
2 implication then is once the information has been
3 collected at the remote location, it is then inspected
4 somewhere else, and there are communications devices
5 described in paragraph 10 as well.

6 Q. So are you testifying that the on-site
7 inspection is not the actual inspection of the
8 infrastructure?

9 MR. SMITH: Objection. Form, argumentative.

10 THE WITNESS: I'm testifying that Deaton
11 describes a portable device that collects inspection
12 data according to an inspection plan. And the
13 inspection of that data may occur in some other
14 location.

15 BY MR. BOWSER:

16 Q. So let's parse this. So you're saying that
17 on-site inspection by itself, that component of data
18 collection -- sorry. Scratch that.

19 So the on-site inspection is only data
20 collection of inspection data according to your
21 interpretation of Deaton; is that right?

22 A. I didn't say that.

23 MR. SMITH: Objection. Argumentative.

24 BY MR. BOWSER:

25 Q. You have used the word "implication" a bunch of

1 times, and I'm trying to make sense of this because I
2 just don't see it. I'm trying to understand here.

3 Are you testifying that the on-site inspection
4 is not the actual inspection of the infrastructure?

5 MR. SMITH: Objection. Form, argumentative.

6 THE WITNESS: I'm testifying that Deaton
7 describes a portable computing device that is used to
8 collect inspection data, that that data is collected
9 according to an inspection plan, and it is communicated
10 to a client using a bi-directional communications
11 device. The inspection may not -- may occur off-site
12 using that collected inspection data.

13 BY MR. BOWSER:

14 Q. So when the inspection occurs off-site,
15 according to as you use the word "implication," when
16 that happens off-site, that's the inspection?

17 MR. SMITH: Objection. Form, argumentative.

18 THE WITNESS: The inspection involves looking
19 at, evaluating, testing the collected inspection data.
20 And I'm testifying that Deaton implies or Deaton
21 basically says that that can occur in a different
22 location than the location where the portable computing
23 device collected the inspection data.

24 BY MR. BOWSER:

25 Q. So under your scenario here where the

1 inspection occurs off-site, right, that's what you are
2 saying; is that correct?

3 MR. SMITH: Objection. Form.

4 BY MR. BOWSER:

5 Q. But just so I understand here, you're saying
6 that there's an embodiment that's implicitly disclosed
7 in Deaton that suggests the concept that there can be an
8 off-site inspection; is that right?

9 MR. SMITH: Objection. Form, mischaracterizes
10 prior testimony.

11 THE WITNESS: I have said that Deaton describes
12 quite explicitly that his portable computing device
13 collects inspection data on-site according to an
14 inspection plan and then communicates it to somewhere
15 else.

16 BY MR. BOWSER:

17 Q. So -- sorry.

18 A. The inspection itself may rely on that data and
19 involve someone looking at that data, but the
20 communication implies that that could occur at a
21 third -- a different location.

22 Q. So in this implied scenario that you are
23 talking about where the inspection occurs off-site, is
24 the on-site inspection -- I'm sorry. Is the on-site
25 collection of data, is that the inspection?

1 MR. SMITH: Objection. Form, argumentative.

2 THE WITNESS: Deaton is explicit that the

3 on-site collection of data is collection of inspection

4 data by the portable computing device.

5 BY MR. BOWSER:

6 Q. I don't mean to harp on this. I'm just having

7 a difficult time understanding it because you haven't

8 pointed to me any specific portion in Deaton that

9 actually discloses. So let's cover this just so we can

10 break this down. You have said that there is a scenario

11 where there is a -- there is a collection of inspection

12 data on the site; right?

13 MR. SMITH: Objection. Form, asked and

14 answered.

15 THE WITNESS: Paragraph 9 refers explicitly to

16 a portable computing device collecting inspection data

17 according to an inspection plan on-site.

18 BY MR. BOWSER:

19 Q. Let's take this scenario here: So you are

20 saying that there is a collection of inspection data

21 on-site, but then there is an evaluation of that data

22 off-site; is that right?

23 MR. SMITH: Objection. Form, argumentative,

24 asked and answered.

25 THE WITNESS: I'm saying that Deaton tells me

1 in paragraph 9, paragraph 10, and, by the way, in
2 Figure 10 that the portable computing device is used to
3 collect inspection data according to an inspection plan,
4 and it is then communicated to a client. That implies,
5 describes, suggests that the inspection itself, the
6 looking at the inspection data, may occur off-site.

7 BY MR. BOWSER:

8 Q. The looking at the inspection data, is that
9 what you consider to be an inspection?

10 MR. SMITH: Objection. Form.

11 THE WITNESS: So I believe as Deaton describes
12 it, there are two steps to an inspection: One is one
13 collects data according to an inspection plan, and the
14 other is there is an actual inspection. You can see
15 this distinction drawn in Figure 10 where he describes
16 collecting inspection data, performing error checking on
17 inspection data, and then transferring the inspection
18 data. The actual inspection involves generating
19 reports, checking those reports, or checking the
20 inspection data.

21 BY MR. BOWSER:

22 Q. So the mere act of collecting inspection data,
23 are you saying that that is not an inspection?

24 MR. SMITH: Objection. Form, argumentative.

25 THE WITNESS: I would not usually think of

1 collecting inspection data as being itself an
2 inspection. Inspection requires some degree of
3 interpreting the data.

4 BY MR. BOWSER:

5 Q. So under your scenario where the inspection
6 data is collected on-site and it's sent off-site, where
7 does the inspection occur then?

8 MR. SMITH: Objection. Form, asked and
9 answered.

10 THE WITNESS: In that scenario where I'm
11 confident that Deaton describes it explicitly or fairly
12 explicitly, the inspection could occur off-site because
13 that's where the data has been communicated to or at
14 least in principle it could occur on-site as well if
15 someone wanted to look at the data there.

16 BY MR. BOWSER:

17 Q. This seems like a simple issue, and I keep
18 getting these asked and answered objections when I'm not
19 getting any answers. So please just tell me, in your
20 scenario where you're simply collecting the inspection
21 data and then sending it off-site, where does the
22 inspection occur?

23 MR. SMITH: Objection. Form, asked and
24 answered.

25 THE WITNESS: The inspection may occur off-site

1 when the data is evaluated to tell whether the
2 infrastructure being inspected meets whatever
3 requirements it's supposed to meet.

4 BY MR. BOWSER:

5 Q. Let's imagine a situation here where we have
6 two scenarios: One is where the inspection occurs
7 on-site, and another is where the inspection data is
8 sent off-site. Is that fair according to your
9 characterization?

10 A. We can consider those two scenarios.

11 Q. So when the inspection data is collected and
12 analyzed on-site, where does the inspection occur?

13 MR. SMITH: Objection. Form, relevance.

14 THE WITNESS: I believe an inspection occurs
15 when either a person or a computer program will look at
16 inspection data and determine whether infrastructure
17 meets such specifications as it's supposed to meet.

18 BY MR. BOWSER:

19 Q. So the inspection is the analysis of the data;
20 is that what you are saying?

21 MR. SMITH: Objection. Form, argumentative,
22 relevance.

23 THE WITNESS: I believe the inspection is when
24 the data is looked at to determine whether the
25 infrastructure is compliant or has the properties that

1 are desired.

2 BY MR. BOWSER:

3 Q. So there's a compliance determination for an
4 inspection; is that what you are saying?

5 MR. SMITH: Objection.

6 THE WITNESS: I think that's probably a little
7 narrow. Different inspections may be for different
8 purposes. And so I think of it as compliance, but one
9 might, for example, wish to determine whether the color
10 of the roof is what you want. And that's tough to think
11 of a -- that as a regulatory compliance example.

12 BY MR. BOWSER:

13 Q. Let's turn to your analysis of Claim 16, and
14 this is for Ground 1, if we could, please. That's --

15 A. Perhaps you could give me a paragraph
16 reference.

17 Q. Yeah, I'm getting there. Paragraph 16 is on
18 page 45.

19 A. Thank you. Forty-five, paragraph 16.

20 Q. Yes.

21 A. Sorry, Claim 16.

22 Q. Yeah, page 45, Claim 16.

23 A. Yes.

24 Q. And do you see Claim 16 reproduced in its
25 entirety on page 45?

1 A. I believe it's correctly reproduced in its
2 entirety.

3 Q. And is it your opinion that Claim 16 is
4 unpatentable for the same reasons that you provided for
5 Limitations 1.0 to 1.5?

6 A. So the declaration says for 16.0C1.0, so it's
7 my opinion that it's unpatentable -- I'm sorry,
8 unpatentable for the same reasons that 1.0 is. For
9 16.1, I refer to 1.1 and 1.2; 16.2, 1.3 and 1.4; and
10 16.3, 1.5.

11 Q. Okay. So to conclude then, your opinion is
12 that Claim 16 is unpatentable for the same reasons as
13 Claim 1; is that right?

14 A. I refer to the analysis of Claim 1, so it would
15 be the same reasons as Claim 1.

16 Q. Can we go to Claim 26 on pages 49 to 50.

17 A. Forty-nine, Claim 26.

18 Q. To 50.

19 A. Yep, I'm at Claim 26.

20 Q. And same thing here: Is your analysis of
21 Claim 26 for the same reasons that you provide for
22 Limitations 1.0 to 1.5?

23 A. Yes, that's correct. Each separate limitation
24 of Claim 26 has a reference to the limitations in
25 Claim 1 that are relevant.

1 Q. Can we turn next to Claim 9, and that is on
2 page 39.

3 A. Thirty-nine. Thirty-nine, Claim 9, I have it.

4 Q. Can you please read Claim 9 for the record.

5 A. Claim 9 reads: The method of Claim 1 further
6 comprising, colon, transmitting roof measurement
7 information based at least in part on the change of the
8 line drawing representing a feature of the roof that
9 overlies the first aerial image of the roof.

10 MR. BOWSER: You know what, I think right now,
11 given the next line of questioning, it might be better
12 just to take a ten-minute break. Can we come back at --
13 so it's 4:39, 4:40. We come back at 4:50 Eastern,
14 3:50 Eastern?

15 MR. SMITH: Let's do that.

16 THE WITNESS: Good by me.

17 (A recess was taken.)

18 BY MR. BOWSER:

19 Q. Dr. Forsyth, welcome back.

20 A. Thank you.

21 Q. Did you speak with counsel during the break?

22 A. I did not.

23 Q. Okay. Do you recall right before we broke we
24 started to talk about Claim 9?

25 A. That's correct. There's some noise going on in

1 the background. Is that disturbing the stenographer?

2 We are good. Okay.

3 Q. All right. I don't recall. Did you read
4 Claim 9 for the record?

5 A. I believe I read Claim 9 for the record at your
6 request.

7 Q. Yes, you did. All right. Sorry.
8 Let's look at Claim 9 on page 39 of your
9 declaration. Do you see that?

10 A. I see Claim 9 on page 39.

11 Q. What is your understanding of the term "roof
12 measurement information" as used in Claim 9?

13 MR. SMITH: Objection to form.

14 THE WITNESS: I would understand roof
15 measurement information according to the general
16 standard I described for claim construction a little
17 earlier of ordinary and usual meaning, and that would be
18 information relating to the measurement of the roof.

19 BY MR. BOWSER:

20 Q. Sorry. Lost my page. Apologize. Give me one
21 moment.

22 Your construction of Claim 9 on paragraph 21 --
23 sorry, yeah, paragraph 21 is not with respect to the
24 meaning of roof measurement information; is that right?

25 A. It's -- I believe that in paragraph 21, the

1 construction is with respect to transmitting.

2 Q. And you said that -- if I'm reading this back
3 accurately, you said roof measurement information means
4 information relating to the measurement of the roof; is
5 that correct?

6 A. I said that, yes.

7 Q. Just jotting a note here.

8 So can we please turn to the '737 patent,
9 Column 2, lines 55 to 58. I want to talk about how that
10 term is used in the '737 patent.

11 Can you go to Column 2, please, of the '737
12 patent.

13 A. Column 2?

14 Q. Yes. And I will direct you to a specific
15 portion. So Column 2, you see where it starts with
16 "detailed description" around line 41?

17 A. Line 41, yes, I see that.

18 Q. And then the first paragraph there that begins
19 "Embodiments described herein," that's the beginning of
20 the detailed description. Do you see that?

21 A. Uh-huh, I see that, yes.

22 Q. So I want to refer to a sentence in this
23 particular paragraph that begins at line 55. And would
24 you please read that sentence into the record.

25 A. The sentence reads: The roof measurement

1 information may include measurements such as lengths of
2 the edges of sections of the roof, comma, pitches of
3 sections of the roof, comma, areas of sections of the
4 roof, comma, et cetera, full stop.

5 Q. Earlier, you said that roof measurement
6 information, according to your understanding, is
7 information relating to the measurement of the roof; is
8 that right?

9 A. I said that, yes, that's correct.

10 Q. And when you read this sentence that we just
11 highlighted in lines 55 to 58 of Column 2, do you still
12 think that roof measurement information is information
13 relating to the measurement of the roof?

14 MR. SMITH: Objection. Form.

15 THE WITNESS: I do. The sentence is not
16 limiting. It suggests that roof measurement information
17 includes a variety of matters, each of which is a
18 measurement relating to the roof.

19 BY MR. BOWSER:

20 Q. So length of the edges of the sections of the
21 roof, that is a measurement relating -- information
22 relating to the measurement of the roof; right?

23 A. I believe that's correct, yes.

24 Q. And pitches of section of the roof, is that
25 information relating to measurement of the roof?

1 A. I believe that's correct, yes.

2 Q. And areas of sections of the roof, is that

3 information relating to a measurement of the roof?

4 A. I believe that's correct, yes.

5 Q. So in Claim 9, if you could please refer to the

6 language of Claim 9 again on page 39 of your

7 declaration.

8 A. Page 39.

9 Q. Yes.

10 A. I have it.

11 Q. Can you please read after the colon, please

12 read that clause.

13 A. I'm sorry, do you mean the wording of Claim 9

14 after the colon?

15 Q. Yes, please.

16 A. Transmitting roof measurement information based

17 at least in part on the change of the line drawing

18 representing a feature of the roof that overlies the

19 first aerial image of the roof.

20 Q. So is it your understanding that the roof

21 measurement information is transmitted in Claim 9 in

22 response to the change of the line drawing representing

23 a feature of the roof that overlies the first aerial

24 image of the roof?

25 MR. SMITH: Objection. Form.

1 THE WITNESS: I'm afraid Claim 9 reads
2 differently. Claim 9 says: Transmitting roof
3 measurement information based at least in part, which is
4 not the same as in response to.
5 BY MR. BOWSER:
6 Q. What does "based on" mean to you?
7 MR. SMITH: Objection. Form.
8 THE WITNESS: Do you mean based on or based at
9 least in part on?
10 BY MR. BOWSER:
11 Q. Based at least in part on. I think we can
12 shorten that to based on.
13 A. Okay. I mean that the process that occurs
14 based at least in part on uses some aspect of the event
15 that it is based at least in part on.
16 Q. Uses some aspect of the event that it is based
17 at least in part on; is that accurate?
18 A. That is what I said. Event probably needs to
19 be broadened because there may be things that are based
20 at least in part on matters that are other than events.
21 But here, it's an event.
22 Q. Can we do a little exercise here with Claim 9
23 where I'm going to divide Claim 9 into three parts.
24 Okay? I'm going to label them as parts A, B, and C.
25 All right. So part A is transmitting roof measurement

1 information. Okay?

2 A. Yes.

3 Q. And, actually, let's just make this two parts.

4 Sorry, let's make this simpler. And then part B is

5 based at least in part on the change of the line drawing

6 representing a feature of the roof that overlies the

7 first aerial image of the roof. Is that okay?

8 A. I see what you mean by part A and part B.

9 Q. So can part A happen without part B happening?

10 A. Can part A happen without part B happening? If

11 there has been no change in the line drawing, then

12 transmitting -- if transmitting occurred, it would not

13 be based on the change because the change had not

14 occurred.

15 Q. So is it fair then to say that the change has

16 to occur in part B for part A to happen?

17 MR. SMITH: Objection. Form, argumentative.

18 THE WITNESS: I don't think that's correct.

19 The change -- sorry. Part B, the change, for part A to

20 be based in part on part B, part B would need to have

21 occurred before part A occurred.

22 BY MR. BOWSER:

23 Q. Right. And let me see what I asked you.

24 So I asked you: Is it fair to say that the

25 change in part B has to occur for part A to happen?

1 A. Yes.

2 MR. SMITH: Objection. Form.

3 THE WITNESS: Sorry. And I was careful about

4 the question of based at least in part.

5 BY MR. BOWSER:

6 Q. So what is your understanding of the phrase

7 "based at least in part on"?

8 A. My understanding is I believe I described it

9 earlier, and I don't want to contradict myself

10 accidentally. But I believe it means that the event or

11 occurrence that is based at least in part on some other

12 occurrence, that first occurrence uses some form of

13 information created in the second occurrence. I believe

14 that's consistent with my previous. Otherwise, you

15 would need to read it back.

16 Q. All right. So let's just summarize here. The

17 first part, transmitting the roof measurement

18 information, that's part A; right?

19 A. That's correct.

20 Q. That will not happen if there isn't a change of

21 the line drawing representing a feature of the roof that

22 overlays or overlies the first aerial image of the roof;

23 is that correct?

24 MR. SMITH: Objection. Form, argumentative.

25 THE WITNESS: That will not happen unless there

1 is a change and also requiring that the transmission is
2 based at least in part. It may happen independently of
3 the change. If it happens independently of the change
4 and the change has not occurred, then it's not based at
5 least in part.

6 BY MR. BOWSER:

7 Q. So if the change doesn't occur, it can't be
8 based at least in part. All right. So I think we got
9 that.

10 So part B is essentially a condition that has
11 to happen for part A to happen; right?

12 MR. SMITH: Objection. Form, argumentative,
13 and mischaracterizes prior testimony.

14 THE WITNESS: Assuming that part A is based at
15 least in part on part B and doesn't occur independently.

16 BY MR. BOWSER:

17 Q. Does Claim 9 read as if part A can occur
18 independently?

19 MR. SMITH: Objection. Form, argumentative.

20 THE WITNESS: To practice Claim 9, you would
21 need to -- part A would need to be based at least in
22 part on part B.

23 BY MR. BOWSER:

24 Q. Okay.

25 A. That does not mean that part A cannot occur

1 independently.

2 Q. Explain that to me, please, how part A can
3 occur independently.

4 A. As an example, a system that transmits roof
5 measurement information every tenth of a second would
6 be -- when it transmitted because it was the tenth of a
7 second, that transmission would be occurring
8 independently. If it also transmitted whenever there
9 was a change in the line drawing, those events, when
10 there was a change in the line drawing, would be
11 practicing Claim 9, but the transmitting every tenth of
12 a second would not.

13 Q. So if the condition didn't happen, you're
14 saying it -- every tenth of a second -- let me read that
15 back here. Scratch that. I will just move on here.

16 Paragraph 68, do you see where you begin to
17 analyze Claim 9?

18 A. I see paragraph 68.

19 Q. Let's just cover this real quickly. So
20 paragraph 67 is you are reiterating your prior opinion
21 about the construction for transmitting roof
22 information; is that right?

23 MR. SMITH: Objection to form.

24 THE WITNESS: I'm reiterating the construction
25 of transmitting. The roof measurement information is

1 not explicitly constructed.

2 BY MR. BOWSER:

3 Q. So your analysis with respect to the prior art
4 begins in paragraph 68 and it spans to paragraph 69; is
5 that correct?

6 MR. SMITH: Objection. Form.

7 THE WITNESS: I believe paragraph 70 has a
8 remark about Claim 9 as well.

9 BY MR. BOWSER:

10 Q. Right. Paragraph 70, though, if I can read
11 that and ask you, it just says: Accordingly, the
12 Heller-Quam combination renders obvious. And then you
13 repeat the claim language; is that right?

14 A. That's correct. Yes.

15 Q. So would you consider paragraph 70 to just be a
16 summary paragraph?

17 MR. SMITH: Objection to form. Argumentative.

18 THE WITNESS: Paragraph 70 states that the
19 combination renders the claim obvious.

20 BY MR. BOWSER:

21 Q. Right. But does it do so with respect to, you
22 know, any citations to the prior art?

23 A. There are no citations to prior art in
24 paragraph 70.

25 Q. So paragraph 68 and 69 contain the citations to

1 the prior art; is that right?

2 A. That's correct.

3 Q. And in paragraph 68, you start with: In the
4 combination, comma, Heller teaches; is that correct?

5 A. That paragraph starts like that, yes.

6 Q. And there is a citation on the third line to
7 Exhibit 1,004; is that right?

8 A. That appears there, yes.

9 Q. And there's an Id. on paragraph -- sorry, the
10 fifth line of paragraph 68.

11 A. Yes, there is.

12 Q. And then there's also an Id. at the conclusion
13 in the eighth line of paragraph 68; is that right?

14 A. That's correct.

15 Q. So turning to paragraph 69, you cite to
16 Exhibit 1,004 in the third line; is that right?

17 A. That's correct.

18 Q. And if we go over to page 40, second line from
19 the top, you also cite to Exhibit 1,004?

20 A. That's correct, yes.

21 Q. And then the sixth line down, you also cite to
22 Exhibit 1,004; is that right?

23 A. That's correct, yes.

24 Q. And the eighth line down, there's an Id.
25 referring to Exhibit 1,004; is that right?

1 A. That's right.

2 Q. And then in the tenth line down, there's

3 another Id. presumably referring back to Exhibit 1,004;

4 is that right?

5 A. That's correct, yes.

6 Q. And then in the last line of paragraph 69, you

7 have sort of a blanket citation to Limitations 1.2 and

8 1.4, and then there's also a citation to Exhibit 1,004

9 with a couple cites of Heller; is that right?

10 MR. SMITH: Objection. Form, argumentative.

11 THE WITNESS: In the last line of paragraph 69,

12 there are cites to 1.2 to 1.4, to Heller pages 4, 5,

13 Figure 4 and Figure 5.

14 BY MR. BOWSER:

15 Q. So let's look at some of this discussion here

16 in paragraph 68. At the top of paragraph 68, you rely

17 on the low level information in Heller on page 5; is

18 that right?

19 MR. SMITH: Objection. Form. Argumentative.

20 THE WITNESS: Sixty-eight, I say that Heller

21 teaches capturing the low level information.

22 BY MR. BOWSER:

23 Q. In paragraph 68, do you cite to the low level

24 information of Heller?

25 A. There's a reference to Heller 1,004, 5. And

1 there's a description that says: Mouse motion with
2 making adjustment and mouse clicks are captured into an
3 event history.

4 Q. So let's look at page 5 of Heller. You know
5 what, let me back up here. Just so we are all on the
6 same page, on paragraph 68, can we just take a quick
7 look at this? So you cited to page 5 of Heller in the
8 third line; right?

9 A. Third line, page 5 of Heller.

10 Q. Yes. Line 5 of page 68, there's an Id.
11 presumably referring back to page 5 of Heller; is that
12 right?

13 MR. SMITH: Objection. Asked and answered.

14 THE WITNESS: The Id. refers to Heller.

15 BY MR. BOWSER:

16 Q. But does it refer to page 5?

17 MR. SMITH: Asked and answered, form.

18 THE WITNESS: It doesn't refer to page 5. It
19 refers to Heller. It would be better if it referred to
20 page 5, but it certainly refers to Heller. That quote
21 appears in Heller.

22 BY MR. BOWSER:

23 Q. We are going to talk about that, but so the
24 last Id. in paragraph 68, is that referring to page 5 of
25 Heller as well because you haven't actually testified

1 about that?

2 A. That refers to Heller. From memory, I can't
3 tell you whether those words appear on page 5. I think
4 there's a good chance that they do.

5 Q. So let's look at page 5 of Heller. I just
6 wanted to, for foundation here, because everything you
7 cite to is on page 5 of Heller, but I wanted to make it
8 easier so when we look at page 5 of Heller we can see
9 that it's all on the same page. All right. Let's look
10 at --

11 MR. SMITH: Objection. Objection.
12 Argumentative.

13 BY MR. BOWSER:

14 Q. -- page 5 of Heller.

15 A. I'm at page 5 of Heller.

16 Q. So let's look here. You see that Heller at the
17 top of Section 3.1 says: We have developed and
18 installed code that captures low level information from
19 the RTS user interface about individual actions taken by
20 the analyst. Do you see that?

21 A. I see that.

22 Q. And then it also continues: Every mouse
23 associated with making adjustments to object parameters
24 and every mouse click is captured into an event history.
25 Did I read that correctly?

1 A. I think you left out mouse motion, but it's
2 correct.

3 Q. So are those the portions that you cite to in
4 paragraph 68?

5 A. They are.

6 MR. SMITH: Objection. Objection, form,
7 argumentative.

8 THE WITNESS: I believe that they are.

9 BY MR. BOWSER:

10 Q. And in the next line of paragraph 68, you refer
11 to the event history and how it captures, quote, object
12 adjustment events, right, which include a, quote, object
13 ID and a, quote, adjustment type. And with that
14 adjustment type, you have also quoted the vertices x, y,
15 z, and width. Do you see that?

16 A. I see that.

17 Q. And you also see that you quoted a sequence of
18 time deltas and mouse position deltas of the form
19 delta-t dx dy. Do you see that?

20 A. I see that.

21 Q. So can you see that all of the cited portions
22 in paragraph 68 are from the right-hand column of page 5
23 under Section 3.1, instrumenting the RTS?

24 MR. SMITH: Objection. Form, argumentative.

25 THE WITNESS: The cited portions in 68

1 certainly appear on page 5 of Heller.

2 BY MR. BOWSER:

3 Q. What is your understanding of the term "object
4 parameters" in the portion of page 5 of Heller that you
5 cited in paragraph 68 of your declaration?

6 MR. SMITH: Objection. Form.

7 THE WITNESS: Ill start with a short answer,
8 and we may expand it as required. Heller deals with a
9 number of different objects, including aerial objects,
10 aerial features described on page 2, lines of
11 communication, buildings, and structures. Each of those
12 types of object will have internal parameters that are
13 used to regulate or specify the shape and appearance.

14 So, for example, Heller's boxes, which are
15 simple rectangular solids, will have a width, a depth,
16 and a height. And those width, depth, and height would
17 be examples of the object parameters referred to in 3.1
18 on page 5.

19 BY MR. BOWSER:

20 Q. Okay. So does the explanation of adjustments
21 to object parameters, do you see that? Let me strike
22 that.

23 In the second sentence under Section 3.1, do
24 you see where it says "making adjustments to object
25 parameters"?

1 A. I see that.

2 Q. So I'm trying to understand. Does adjustments
3 to object parameters, does that mean making adjustments
4 to the objects themselves?

5 MR. SMITH: Objection. Form.

6 THE WITNESS: I believe you are -- formally,
7 you would be making adjustments to parameters of
8 instances of the objects because there might be more
9 than one box. You are certainly not changing the object
10 itself.

11 BY MR. BOWSER:

12 Q. So are you interpreting the word "object" then
13 to mean a primitive? Like a box, for example?

14 A. I believe Heller refers to objects as being
15 primitives. So an object might be a primitive. It
16 might also be an area feature or a ribbon. I think
17 there are a couple of others. There's a line of
18 communications.

19 Q. So what's your understanding of the use of the
20 word "parameters," though, in that sentence?

21 MR. SMITH: Objection. Form.

22 THE WITNESS: The parameters in that sentence
23 are the parameters associated with the particular
24 instance of the object being adjusted. So a site model
25 might contain multiple boxes. Each box is an instance.

1 One particular box might have its height or its width or
2 its depth adjusted, and those parameters would be the
3 object parameters that Heller is referring to.

4 BY MR. BOWSER:

5 Q. So to use an example, adjusting the width of a
6 box, you're saying that adjusting the width of a box
7 falls under, quote, making adjustments to object
8 parameters in Heller; is that right?

9 A. I believe that adjusting the width of the box
10 would fall under adjusting object parameters in Heller.

11 Q. Okay.

12 A. I need to be precise. Adjusting the width of
13 an instance of a box primitive. Right? So Heller in
14 his scenes may have multiple boxes. Adjusting just one
15 of them is adjusting object parameters.

16 Q. So with your example, let's assume there's
17 ten -- sorry -- ten boxes; right?

18 A. Correct.

19 Q. And of those ten boxes, you are making an
20 adjustment to just box six and you're adjusting the
21 width of just box six.

22 A. And if I do that, I would be adjusting object
23 parameters.

24 Q. So let's go to page 5 of Heller again. And can
25 we look at the characterization? And we talked about

1 earlier a little bit about the goals of Heller is to
2 increase the speed and accuracy. Do you see that under
3 characterization?

4 A. I see that.

5 Q. And also the authors in Heller ask: How did we
6 achieve that? And at the top of first full paragraph on
7 the right column of page 5, they say that, quote, we
8 have chosen to measure the amount of effort expended by
9 the human analyst by the number of mouse clicks and the
10 amount of mouse travel required to achieve a desired
11 answer. We feel that this is a better measure than, for
12 example, actual computation times because it truly
13 reflects the amount of human interaction and does not
14 depend on the speed of the computer being used. Do you
15 see that?

16 A. I see that.

17 Q. So when you see Section 3.1, do you consider
18 Section 3.1 as part of Section 3?

19 A. I consider Section 3.1 as part of Section 3,
20 yes.

21 Q. So when you review Heller, would you consider
22 Section 3.1 in light of Section 3's description that
23 recording mouse clicks is performed for the purpose of
24 testing whether Heller's system is faster than before?

25 MR. SMITH: Objection. Form, argumentative.

1 THE WITNESS: So would I interpret -- sorry.
2 I'm trying to -- I'm sorry, I'm going to ask you to
3 repeat the question.
4 BY MR. BOWSER:
5 Q. So we talked earlier about how Section 3.1
6 should be read in light of Section 3. I think you
7 agreed to that; right?
8 A. I agreed that Section 3.1 was part of
9 Section 3.
10 Q. So if Section 3.1 is part of Section 3, should
11 Section 3.1 be read in light of Section 3?
12 A. Each part of the document should be read in the
13 light of all of the other parts of the document.
14 Q. And in Section 3, there is the goal to record
15 mouse clicks and amount of mouse travel; is that right?
16 A. Section 3 offers one reason why he would record
17 mouse clicks and the amount of mouse travel, yes.
18 Q. And then in the last sentence of the first full
19 paragraph of Section 3.1, it identifies the list of
20 information that is recorded.
21 A. That's correct, yes.
22 Q. And is this information being recorded in light
23 of the goal of Section 3 to figure out the amount of
24 effort expended by the human analyst based on the number
25 of mouse clicks and the amount of mouse travel?

1 MR. SMITH: Object to form. Argumentative.
2 THE WITNESS: That is certainly one reason that
3 it may be recorded.
4 BY MR. BOWSER:
5 Q. So let's turn to paragraph 69 of your
6 declaration, please.
7 A. Paragraph 69. I'm at paragraph 69.
8 Q. The first sentence of paragraph 69 says: A
9 POSITA would have understood or at least found it
10 obvious that the object adjustment events in the event
11 history include roof measurement information. Do you
12 see that?
13 A. I see that.
14 Q. Don't you say that the object -- sorry, let me
15 scratch that.
16 Don't you say that the object adjustment events
17 represent the user adjusting the size of the wire frame
18 overlays later in paragraph 69?
19 MR. SMITH: Objection. Mischaracterizes prior
20 testimony.
21 THE WITNESS: I think the following sentence
22 reads: The object adjustment events represent, for
23 example, the user adjusting the size of the wire frame
24 overlays.
25

1 BY MR. BOWSER:

2 Q. Does Heller describe any other types of object
3 adjustment events?

4 A. Let me see. So the -- I would regard the -- on
5 figure -- sorry. Heller page 6, Figure 4 shows a series
6 of events that I would regard as object adjustment
7 events, including align corner, set the orientation, set
8 the length and width, triangulate the elevation, and set
9 the height.

10 On page 7 in Figure 5, he refers to sketch roof
11 line, done with roof line. Notice between sketch and
12 done, he has inserted a vertex into the extrusion
13 primitive. Find elevation and optimize shape. I would
14 characterize all of those as object adjustment events.

15 Q. And then do all of those object adjustment
16 events include the user adjusting the size of the wire
17 frame overlays?

18 A. Not all of them do. There is one where you do
19 in Figure 4, page 6, you do XY size and by doing --
20 triangulate the elevation and setting the height, you
21 would be adjusting the size as well.

22 Q. Let me take an example on Figure 4. This is
23 something that we talked about earlier and it's the
24 fourth line. Sorry. The fourth row of four. Do you
25 see that?

1 A. I see that. It's the row labeled "Set the
2 Orientation."

3 Q. Right. Set the orientation. Can you agree
4 that the line drawing is not correct with respect to the
5 dimensions of the roof there?

6 MR. SMITH: Objection. Form, argumentative.

7 THE WITNESS: I would say that the line
8 drawing -- well, the underlying object has not been
9 correctly aligned with the building in Row 4 of
10 Figure 4.

11 BY MR. BOWSER:

12 Q. And then as we go from Row 4 to Row 5, there is
13 an adjustment where you're setting the length and the
14 width; is that right?

15 A. Where I go from Row 4 to Row 5, I set the
16 length and the width. That's correct.

17 Q. On the right-hand side of Row 5, is the line,
18 is that perfectly aligned with the roof structure?

19 A. The 3D object is aligned with the image on the
20 left but not with the image on the right. The 3D object
21 represented by this roof can be pushed deeper into the
22 image which would change its position along epipolar
23 lines in the left-hand image -- sorry, the right-hand
24 image.

25 Q. Let's go to -- I want to focus on a sentence

1 that you have in paragraph 69 of your declaration.

2 A. I'm at paragraph 69.

3 Q. And do you see -- looking at a paper copy, here

4 it is. Same thing. Starting with line 6 after the

5 citation to page 5 of Heller, can you read the next two

6 sentences.

7 THE WITNESS: The sentence starts with "the

8 mouse movement"?

9 BY MR. BOWSER:

10 Q. Yes.

11 A. The mouse movement during the adjustment

12 represents the change in the size of the line drawing

13 during the adjustment, full stop. Italics, Id., full

14 stop. Because the line drawings are used to model the

15 roof structure of a building, C, square brackets, 1.2,

16 closed square brackets, 2, square brackets, 1.4, closed

17 square brackets, closed parens, comma, a change in the

18 size of the line drawing represents a change in the

19 measurements of the roof represented by the model.

20 Q. Let's use an example. Let's go back to

21 Figure 4 and let's look at Row 2.

22 A. Row 2, Figure 4. Okay.

23 Q. All right. So on the right-hand side of Row 2,

24 it says: Place the box primitive dropping it; right?

25 A. Yes.

1 Q. And then Row 3 says: Align a corner; is that
2 right?
3 A. Row 3 says align a corner, yes.
4 Q. Okay. Have you moved the line drawing in
5 Row 3?
6 MR. SMITH: Objection. Form.
7 THE WITNESS: Has the user moved the line
8 drawing in Row 3? Yes, the user has moved the line
9 drawing in Row 3 so that in the left-hand image a corner
10 lies on top of a corner of the building in Row 3,
11 left-hand image.
12 BY MR. BOWSER:
13 Q. To use your words in paragraph 69, has a user
14 changed the size of the line drawing in the third row of
15 Figure 4?
16 A. Has the user changed the size of the line
17 drawing in the third row of Figure 4? It looks as
18 though the user has not.
19 Q. Let's go then to Row 4. Has the user -- let me
20 get the words here as you say in paragraph 69 -- changed
21 the size of the line drawing?
22 A. The user has changed the size of the line
23 drawing in Row 4.
24 Q. And does that change in the size of the line
25 drawing represent a change in the measurement of the

1 roof?

2 A. Does that change of the size of the line
3 drawing represent a change in the measurement of the
4 roof? It represents a change in the area of the roof of
5 the 3D model represented by the line drawing.

6 Q. Let me ask that again because you didn't answer
7 my question.

8 A. I apologize.

9 Q. Does the change -- okay. Does the change in
10 the size of the line drawing in the fourth row represent
11 a change in the measurement of the roof?

12 MR. SMITH: Objection. Asked and answered.

13 THE WITNESS: So the change in the size of the
14 line drawing in Row 4 represents a change in the area of
15 the roof of the 3D primitive represented by the line
16 drawing in the image and so a change in the area of its
17 roof and the measurement of its roof.

18 BY MR. BOWSER:

19 Q. Where in Heller is there a discussion about
20 changing the roof measurement when you change a line?

21 MR. SMITH: Objection. Form.

22 THE WITNESS: So in Heller, what I'm doing is
23 I'm changing an underlying 3D model, in this case the
24 box that is being used to model this building. If I
25 change that model and -- or I click and drag on the

1 image, my interaction with the image causes the line
2 drawing and the model to change. That change in the
3 model is represented by the two overlaid views on the
4 image. And that change in the model, because the size
5 of the model has changed, its roof has changed.

6 BY MR. BOWSER:

7 Q. Just so I understand that, when you change the
8 model, you have changed the size of the roof; is that
9 right?

10 A. Well, it depends on what change you make to the
11 model. If you rotate the model or translate it in the
12 image coordinate system, you will not change the size of
13 the roof. But if you scale the model, as in it has
14 occurred in Row 4, you will change the size of the roof.

15 Q. Let's look at Figure 4 on the left-hand side.
16 Excluding the primitives or the rectangles, does the
17 size of the roof in the left column of Figure 4, does
18 that ever appear to change?

19 A. Are you talking about the roof of the object
20 represented by the line drawing, or the roof of the
21 building represented in the picture?

22 Q. The roof of the building represented in the
23 picture.

24 A. The roof of the -- the measurements of the roof
25 of the underlying picture do not change because that

1 building does not change.

2 Q. So the only thing that changes then is the
3 rectangle; is that right?

4 A. What changes is the 3D model, its
5 representation as a line drawing, and all of the
6 parameters of the 3D model depending on what changes
7 have been made. But the building depicted in the
8 picture does not change in this process.

9 Q. Let's go back to paragraph 69 --

10 A. Paragraph 69.

11 Q. -- of your declaration. I just want to get
12 some clarification here because I'm not sure what this
13 Id. might refer to. Do you remember the sentence that
14 we read that says: Because the line drawings are used
15 to model the roof structure of a building, and then
16 there's a parenthetical and it's referring to
17 Limitations 1.2 to 1.4. Do you see that?

18 A. I see that.

19 Q. And then it says: A change in the size of the
20 line drawing represents a change in the measurements of
21 the roof represented by a model. And then there's an
22 Id. Do you see that?

23 A. Yes.

24 Q. So does that Id. refer to Limitations 1.2 to
25 1.4 or does it refer to the previous Id. at the end of

1 the sentence starting with "the mouse movement during"?

2 A. I believe it's a reference to Heller.

3 Q. So the Id. at the end of the sentence beginning
4 with "because the line drawings are used," that Id. is
5 supposed to refer to page 5 of Heller; is that right?

6 A. I believe it's a reference to Heller. I'm not
7 confident that it's a reference to page 5 of Heller.

8 Q. So you're relying on Heller then for the
9 concept that when you change the size of the line
10 drawing, that represents a change in the measurements of
11 the roof represented by the model; is that right?

12 MR. SMITH: Objection. Form, argumentative.

13 THE WITNESS: It is certainly the case that in
14 Heller a change in the size of the line drawing does
15 represent a change in the measurements of the roof
16 represented by the model. That may be mentioned in Quam
17 as well.

18 BY MR. BOWSER:

19 Q. Is Quam cited in your declaration for this
20 point?

21 A. The Heller-Quam combination is cited in the
22 declaration for this point. There are no point cites to
23 Quam in paragraph 67, 68, 69, but Quam reproduces at
24 least one figure from Heller.

25 Q. So I just want a clear answer on this. For the

1 portion of paragraph 69 that says: A change in the size
2 of the line drawing represents a change in the
3 measurements of the roof represented by the model, what
4 are you citing for that idea?

5 MR. SMITH: Objection. Form, asked and
6 answered.

7 THE WITNESS: I believe that it is a citation
8 to Heller.

9 BY MR. BOWSER:

10 Q. All right. Let's move to Claim 10, please, and
11 that's the top of page 41.

12 A. I'm at Claim 10.

13 Q. For context, I want to talk to you primarily
14 about Limitation 10.2, but just for context, please read
15 Limitations 10.0 and 10.1. You can read them to
16 yourself.

17 A. I have read them.

18 Q. So let's go To limitation 10.2. Do you see
19 10.2?

20 A. On page 42, I see 10.2.

21 Q. Yes. Okay. Would you please read 10.2 for the
22 record.

23 A. 10.2 reads: Registering based on the received
24 indication of the point, the aerial image to a reference
25 grid corresponding to a three-dimensional model of the

1 roof.

2 Q. I think we need a little bit more context here.
3 Sorry, that's my mistake. So let's go back to
4 Limitation 10.0. I just want to see that we are all on
5 the same page.

6 For Limitation 10.0, you are relying on Quam's
7 X-shaped crosshair as corresponding to the claimed
8 marker; is that right?

9 MR. SMITH: Objection. Form, argumentative.

10 THE WITNESS: Seventy-one described -- mentions
11 Quam describing a plus-shaped crosshair and an X-shaped
12 crosshair. They're both markers operable to specify a
13 point on the image. The plus is operable in a slightly
14 different way than the X.

15 BY MR. BOWSER:

16 Q. So I'm going to read the last sentence of
17 paragraph 71. And it says, quote, the 2D component is
18 drawn as an X-shaped crosshair. And then you insert in
19 a parenthetical "A marker," which is the claim language,
20 and then you continue there, it says, quote: Whose
21 image overlay position is set manually through mouse
22 interactions, end quote. And then you reproduce the
23 claim language: Operable to specify a point on an
24 image; is that correct?

25 A. That's correct.

1 Q. And for Limitation 10.1, to summarize, you're
2 relying on Quam teaching that the claimed -- teaching
3 the claimed marker because the user manually sets an
4 invitation of a point on the first aerial image using a
5 mouse and the X-shaped crosshair; is my understanding
6 correct?

7 MR. SMITH: Objection. Form, mischaracterizes
8 prior testimony.

9 THE WITNESS: Seventy-two describes what I rely
10 on in Quam, which is the X-shaped marker, which is set
11 manually through mouse interactions.

12 BY MR. BOWSER:

13 Q. All right. So once we have covered that, let's
14 now turn to Limitation 10.2, and you read
15 Limitation 10.2, registering, comma, based on the
16 received indication of the point, the aerial image to a
17 reference grid corresponding to a three-dimensional
18 model of the roof; right?

19 A. That's what it reads.

20 Q. Paragraph 75, right above paragraph 75, do you
21 see Figure 8?

22 A. I see Figure 8.

23 Q. And then in paragraph 75, which refers also to
24 sort of an excerpt of Figure 8, which somebody
25 annotated, it has the following detail of Figure 8 from

1 Quam shows the two image panes at the bottom left of the
2 figure which display, quote, enlarged views of the
3 current conjugate point on both the image being
4 registered and a previously registered reference image,
5 end quote. Did I read that correctly?

6 A. Previously -- you read that correctly.

7 Q. And then the second sentence is: An X-shaped
8 crosshair is displayed on both images indicating the,
9 quote, current conjugate point, end quote, with an Id.
10 cite to Heller -- sorry, Quam page 15; is that right?

11 A. It's an Id. cite to Quam. It should be
12 page 15, but it might be another page.

13 Q. So in your annotation of Figure 8 on page 44,
14 it's above paragraph 76.

15 A. I see that.

16 Q. Does the marker in the bottom image, which is
17 the reference chip, does that indicate a point in a
18 previously registered image?

19 A. Does that marker represent a point in a
20 previously registered image? Quam describes -- as
21 paragraph 75 says, Quam describes the figure as
22 displaying enlarged views of the current conjugate point
23 on both the image being registered and a previously
24 registered reference image. So the point has not been
25 registered. The images have been registered.

1 Q. So the images have been registered. And then
2 there is a designation of a point in the registered
3 image; is that right?

4 A. There's a designation of a point in 3D, which
5 was in the image. So the cross is the one you operate
6 and the plus, I believe, is the conjugate.

7 MR. SMITH: Hey, Jonathan.

8 MR. BOWSER: All right.

9 MR. SMITH: Jonathan, we have been going about
10 an hour. Can we go ahead and take a break?

11 MR. BOWSER: I'm almost done if you want to
12 just wait like two or three minutes.

13 MR. SMITH: All right.

14 THE WITNESS: I can live with it.

15 BY MR. BOWSER:

16 Q. Can you please turn to paragraph 76.

17 A. I am at paragraph 76.

18 Q. All right. So do you see one, two, three,
19 four -- lines 4 and 5 of paragraph 76 where you
20 reference the world coordinate system described in Quam?

21 A. I do.

22 Q. Okay. And I'm going to read this sentence, and
23 you let me know if I read this accurately. It says: A
24 POSITA would have understood the world coordinate system
25 described in Quam to be a reference grid.

1 A. That's what it says, yes.

2 Q. What is your understanding of a world
3 coordinate system?

4 MR. SMITH: Objection.

5 THE WITNESS: A POSITA at the time would have
6 understood a world coordinate system to be a single
7 reference coordinate system in which one wanted to
8 combine objects that had local coordinate systems or
9 individual coordinate systems and in which it was
10 convenient to work. I think that's a reasonable summary
11 of the idea.

12 BY MR. BOWSER:

13 Q. Let's take a quick look at page 5 of Quam that
14 you cited.

15 A. Page 5.

16 Q. Exhibit 1,005.

17 A. 1,005. I have page 5.

18 Q. Do you see on the right-hand side of Quam, it
19 is under the Section 3.3 for solid modeling?

20 A. I see Section 3.3.

21 Q. Okay. And the acronym RCDE, just so I can
22 shortcut this, it means radius common development
23 environment?

24 A. I believe that's correct, yes.

25 Q. Yeah. And let's go to the first bullet point

1 under Section 3.3 where it starts with: Registration of
2 multiple data sources, including stereographic or
3 multiple images, terrain elevation models, and 3D object
4 models to the same world coordinate system. Do you see
5 that?

6 A. I see that.

7 Q. And then also in paragraph 76 of your
8 declaration, you also reference the third bullet point,
9 which deals with registration of local coordinate
10 systems to Universal Transverse Mercator, UTM,
11 latitude-longitude, and other cartographic coordinate
12 representations. Do you see that?

13 A. I see that.

14 Q. So the words "world coordinate system" appear
15 in the first bullet point and the third bullet point.
16 Do you see -- let's go back over this.

17 So the first bullet point says the same world
18 coordinate system. Do you see that?

19 A. I see that.

20 Q. And then in the second sentence of the third
21 bullet point, it links -- or it says: The use of real
22 world coordinate system enables the system to exploit
23 specific world knowledge, for example, by computing the
24 sun position for a particular location at a particular
25 time of day.

1 A. I see.

2 Q. Those are the portions in Quam that you have
3 cited in paragraph 76 for the world coordinate system?

4 A. I want to draw a distinction between real world
5 coordinate systems and world coordinate systems. The
6 first bullet refers to world coordinate system; the
7 second refers to real world coordinate systems.

8 Q. So are you relying then on the world coordinate
9 system in the first bullet point where you cite to
10 paragraph -- sorry, page 5 in paragraph 76 of your
11 declaration?

12 A. Paragraph 76 -- 76 refers to the second bullet
13 and also to the first one. It refers to the world
14 coordinate system, which appears in the first bullet,
15 and it refers to real world coordinate systems like
16 Universal Transverse Mercator, lat-long, and
17 cartographic representations.

18 Q. Where in the portions that you cited in
19 paragraph 76 is the real world -- or sorry, the world
20 coordinate system tied to a specific three-dimensional
21 model of a roof?

22 MR. SMITH: Objection. Form.

23 THE WITNESS: In Heller -- sorry. This is
24 Quam. I'm getting a little -- in Quam, page 5, bullet
25 one, I can register three object models to the same

1 world coordinate system. Because the world coordinate
2 system is something I can choose at will and can base on
3 a 3D object model or attach to a 3D object model, I can
4 choose a world coordinate system attached to a 3D object
5 model. I then register data sources to that coordinate
6 system.

7 BY MR. BOWSER:

8 Q. So you have registered it to a data system.
9 But have you registered it to a model of a roof?

10 A. By registering --

11 MR. SMITH: Objection. Form, argumentative.

12 THE WITNESS: By registering it to the world
13 coordinate system that I have chosen to be attached to a
14 particular 3D object model, I have also registered it to
15 the model.

16 BY MR. BOWSER:

17 Q. And you're basing that off of this first bullet
18 point on page 5?

19 MR. SMITH: Objection. Form.

20 THE WITNESS: I'm afraid that's what this first
21 sentence in the bullet point in page 5 would mean to a
22 POSITA at the time.

23 BY MR. BOWSER:

24 Q. So just so I understand, it says here:
25 Registration of multiple data sources, including

1 stereographic or multiple images, terrain elevation
2 models, and 3D object models to the same world
3 coordinate system. Okay? That sentence suggests that
4 you're attributing multiple 3D models to the same world
5 coordinate system; is that right?

6 MR. SMITH: Objection. Form, argumentative.

7 THE WITNESS: The sentence tells me that I can
8 register multiple data sources, including 3D object
9 models, to the world coordinate system. It doesn't
10 require me to register multiple models to that
11 coordinate system.

12 BY MR. BOWSER:

13 Q. But the beginning part of that bullet point
14 says "registration of multiple data sources," does it
15 not?

16 MR. SMITH: Objection. Same -- same objection.

17 THE WITNESS: It's -- the beginning part of the
18 sentence says "registration of multiple data sources."
19 It then describes the different possible data sources
20 that you could register to the same world coordinate
21 system or some of the different possible ones.

22 BY MR. BOWSER:

23 Q. I'm trying to understand the leap you're making
24 here, because you have 3D object models, and you're
25 saying that that is a three-dimensional model of a roof;

1 right?

2 MR. SMITH: Objection. Form, argumentative.

3 THE WITNESS: I --

4 BY MR. BOWSER:

5 Q. Is that correct?

6 A. I'm saying that one 3D object model would be --

7 one example of a 3D object model would be a model of a

8 roof.

9 MR. SMITH: Jonathan, we have been going about

10 ten minutes over when we asked for the break. Let's go

11 ahead and break, and then we can finish up, even if it's

12 short, after that.

13 MR. BOWSER: Sure.

14 (A recess was taken.)

15 BY MR. BOWSER:

16 Q. All right. Dr. Forsyth, welcome back.

17 A. Thank you.

18 Q. Back on the record. Did you speak with counsel

19 during the break?

20 A. I did not.

21 MR. BOWSER: I want to just say thank you very

22 much for your time. I know this has been a long

23 deposition. I have no further questions for you today.

24 THE WITNESS: Thank you.

25 MR. SMITH: All right. Let us -- give us a

1 couple minutes to confer regarding possible redirect.
2 MR. BOWSER: Okay.
3 (A recess was taken.)
4 (Discussion held off record.)
5 THE STENOGRAPHER: We are back on the record.
6 MR. SMITH: Dan Smith for petitioner, we have
7 no questions.
8 THE STENOGRAPHER: Any other pertinent matters
9 for the record?
10 MR. SMITH: Not for me.
11 MR. BOWSER: Lynette, do you have any questions
12 about, you know, things we talked about?
13 (Discussion off record.)
14 (Concluded at 5:11 p.m. Central Standard Time.)
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DEPONENT'S CHANGES OR CORRECTIONS

Note: If you are adding to your testimony, print the exact words you want to add. If you are deleting from your testimony, print the exact words you want to delete. Specify with "Add" or "Delete" and sign this form.

DEPOSITION OF: **DAVID A. FORSYTH, Ph.D.**
CASE: **NEARMAP US, INC., V EAGLE VIEW**
DATE OF DEPOSITION: **JANUARY 24, 2023**

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Declaration Under Penalty of Perjury

I, DAVID A. FORSYTH, Ph.D., the witness
herein, declare under penalty of perjury that I have
read the foregoing in its entirety; and that the
testimony contained therein, as corrected by me, is a
true and accurate transcription of my testimony elicited
at said time and place.

Executed this _____ day of _____ 20__, at
_____, _____.
(city) (state)

DAVID A. FORSYTH, Ph.D.

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State of California)
) ss
County of San Diego)

I, LYNETTE M. NELSON, CSR No. 11585, RPR, CRR, CCRR, CRG, duly licensed and qualified in and for the State of California, do hereby certify that there came before me on the 24th day of January, 2023, via remote videoconference technology, the following named person, to-wit DAVID A. FORSYTH, Ph.D., who was duly sworn to testify the truth, the whole truth, and nothing but the truth of knowledge touching and concerning the matters in controversy in this case; and that he was thereupon examined under oath and his examination reduced to typewriting under my supervision; that the deposition is a true record of the testimony given by the witness.

I further certify that pursuant to FRCP Rule 30(e)(1) that the signature of the deponent:

() Was requested by the deponent or a party before the completion of the deposition;

(X) was not requested by the deponent of a party before the completion of the deposition.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the

1 parties to the action in which this deposition is taken,
2 and further that I am not a relative, employee of any
3 attorney or counsel employed by the parties hereto, or
4 financially interested in the action.

5 CERTIFIED TO BY ME on this 30th day of January,
6 2023.

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8 

9 LYNETTE M. NELSON,
10 CSR No. 11585, RPR, CRR, CCRR,
11 CRG, REALTIME SYSTEMS ADMIN.
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