

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEARMAP US, INC.,
Petitioner,

v.

PICTOMETRY INTERNATIONAL CORP.,
Patent Owner.

IPR2022-00735
Patent 8,593,518 B2

Before THOMAS L. GIANNETTI, GARTH D. BAER, and
RUSSELL E. CASS, *Administrative Patent Judges*.

CASS, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background

In this *inter partes* review, Nearmap US, Inc. (“Petitioner”) challenges the patentability of claims 1–16 (the “challenged claims”) of U.S. Patent No. 8,593,518 B2 (Ex. 1001, “the ’518 patent”), which is assigned to Pictometry International Corp. (“Patent Owner”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision, issued pursuant to 35 U.S.C. § 318(a), addresses issues and arguments raised during the trial in this *inter partes* review. For the reasons discussed below, Petitioner has not proven by a preponderance of the evidence that any of claims 1–16 are unpatentable.

B. Procedural History

In this proceeding, Petitioner relies upon the following references:

Noah Snavely et al., *Photo Tourism: Exploring Photo Collection in 3D*, ACM Siggraph 2006 Papers (July 2006) (Ex. 1004, “Snavely”);

Balfour, US 7,554,539 B2, issued June 30, 2002 (Ex. 1005, “Balfour”);

Yelton, US 7,148,861 B2, issued Dec. 12, 2006 (Ex. 1006, “Yelton”); and

Michael Irani et al., *Video Indexing Based on Mosaic Representations*, Proceedings of the IEEE (Volume: 86, Issue: 5, May 1998), pp. 905–921 (Ex. 1007, “Irani”).

Pet. iii, 2. Petitioner submits declarations from Dr. David Forsyth (Exs. 1003, 1019) and June Munford¹ (Exs. 1015, 1016, 1020). Patent Owner submits declarations from Dr. Chandrajit Bajaj (Exs. 2001, 2007).

¹ In the time between the filing of the first and second Munford Declarations, Ms. Munford changed her name from Jacob Robert Munford

A. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–16 of the '518 patent based on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 3–16	103(a) ²	Snavelly, Balfour, Irani
2	103(a)	Snavelly, Balfour, Irani, Yelton

Pet. 2. Patent Owner filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). We instituted trial on all grounds of unpatentability. Paper 10 (“Inst. Dec.”), 44.

During the trial, Patent Owner filed a Response (Paper 23, “PO Resp.”), Petitioner filed a Reply (Paper 28, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 36, “PO Sur-reply”).

An oral hearing was held on August 8, 2023, a transcript of which appears in the record. Paper 43 (“Tr.”).

B. Real Parties in Interest

Petitioner states that Nearmap US, Inc. is the real party in interest. Pet. 1, 55. Patent Owner states that the real parties in interest are Pictometry International Corp. and Eagle View Technologies, Inc., which are both subsidiaries of EagleView Technology Corporation. Paper 3, 2.

to June Munford. Ex. 1016 ¶ 2. In this Decision, we will refer to Ms. Munford as “June Munford” or “Ms. Munford.”

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. § 103 that became effective after the filing of the application that led to the '518 patent. Therefore, we apply the pre-AIA version of 35 U.S.C. § 103.

C. Related Proceedings

The parties state that the '518 patent was asserted in *Eagle View Technologies v. Nearmap US*, No. 2-21-cv-00283 (D. Utah). Pet. 55–56; Paper 3, 2.

D. The '518 Patent (Ex. 1001)

The '518 patent is directed to a “computer system for continuously panning oblique images” in which “separate oblique images are presented in a manner that allows a user to maintain an understanding of the relationship of specific features between different oblique images when panning.” Ex. 1001, code (57).

The '518 patent explains that in the remote sensing/aerial imaging industry, imagery is used to capture views of a geographic area, referred to as “geo-referenced images.” Ex. 1001, 1:22–27. According to the '518 patent, such geo-referenced images come in two basic categories—captured images, which have same appearance as when captured by a camera, and projected images, which have been processed and converted to conform to a mathematical projection. *Id.* at 1:27–32. Because “most software cannot geo-reference captured imagery,” captured imagery may be reprocessed to create projected imagery, the most common of which is an “ortho-rectified image,” which “aligns the image to an orthogonal or rectilinear grid.” *Id.* at 1:33–38. “The input image used to create an ortho-rectified image is a nadir image—that is, an image captured with the camera pointing straight down,” the '518 patent explains, and it is often “desirable to combine multiple images into a larger composite image” to cover “a larger geographic area on the ground.” *Id.* at 1:38–43. One form of this composite image is the “ortho-mosaic image,” which “is an image created from a series of

overlapping or adjacent nadir images that are mathematically combined into a single ortho-rectified image.” *Id.* at 1:43–47.

“However,” the ’518 patent explains, because ortho-mosaic images “are captured looking straight down, this creates a view of the world to which we are not accustomed,” and thus “many people have difficulty determining what it is they are looking at in the image.” Ex. 1001, 2:10–15. For example, a school bus may appear as a yellow rectangle, and only roof tops of buildings may be visible. *Id.* at 2:15–22. By contrast, an oblique image, which is captured at an angle, “presents a more natural appearance because it shows the sides of objects and structures,” and is “still in the natural appearance that the camera captures.” *Id.* at 2:26–32. But oblique images, the ’518 patent explains, present an issue because they “are not aligned to a map grid, like ortho-mosaic images,” which “makes them much less intuitive when attempting to navigate or determine direction of an image.” *Id.* Specifically, because an oblique image “can be captured from any direction, the horizon can be in any direction,” which “can cause confusion for someone trying to navigate within the image.” *Id.* at 2:50–58. Additionally, because an oblique image “is still in the original form the camera captured, and has not been re-projected into a mathematical model, it is not necessarily true that the compass directions meet at right angles within the image.” *Id.* at 2:58–65.

The ’518 patent further explains that “[b]ecause oblique images are not grid aligned and can be captured from any direction[,] a feature on one image will not look the same on another image.” Ex. 1001, 3:26–28. Therefore, “the common practice in the industry is to provide oblique imagery as a series of individual images within which the user can pan.” *Id.*

at 3:51–53. That is, “[t]o see beyond the limits of an image[,] the user needs to cause another image to be loaded; they can then pan within that image.” *Id.* at 3:53–55. Thus, the ’518 patent explains, “panning oblique images in a continuous manner is fraught with problems and unlikely to provide a useable means of navigation using the current state of the art.” *Id.* at 9:31–34.

To address these issues, the ’518 patent “allows for separate obliquely captured images to be panned in a continuous fashion.” Ex. 1001, 3:61–62. This approach is illustrated in Figure 2 (reproduced below), which illustrates master image 100, primary oblique image 102, and one or more secondary oblique images 104a–d.

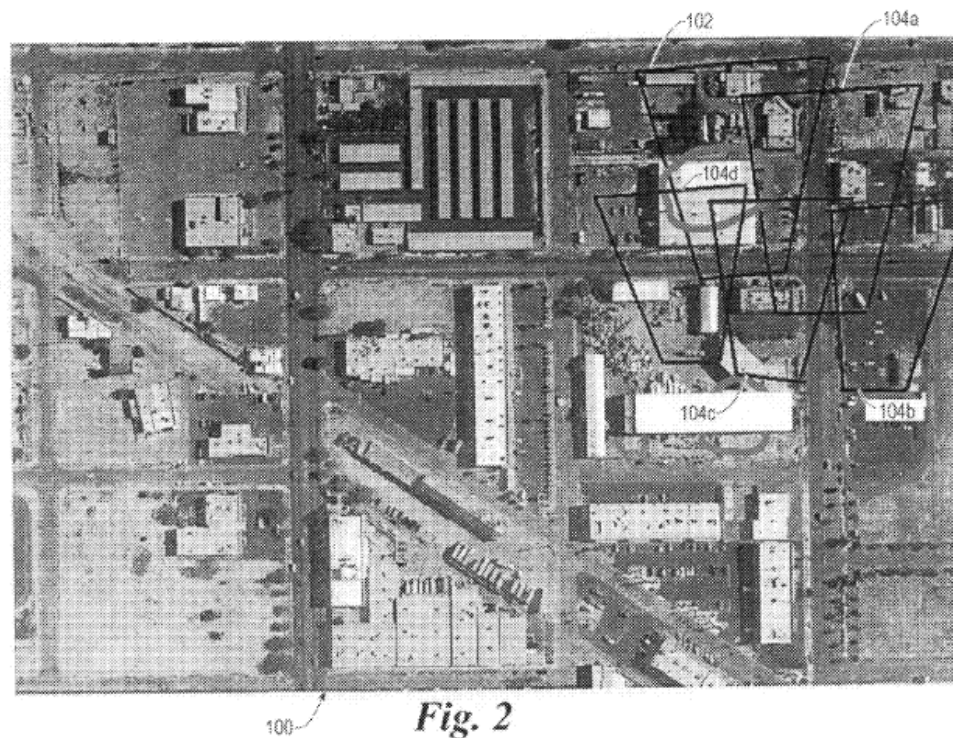


Figure 2 of the ’518 patent shows master image 100, primary oblique image 102, and secondary oblique images 104a–d. Ex. 1001, Fig. 2, 8:50–54. As shown in Figure 2, “secondary oblique images 104a–d overlap a portion of the primary oblique image 102, such that overlapping portions of the

primary image 102 and secondary oblique images 104 a–d represent the same features of the area of interest.” Ex. 1001, 8:61–66. Thus, “the primary oblique image(s) 102 and the secondary oblique image(s) 104a–d are part of a set of adjacent oblique images cooperating to represent the area of interest or a portion of the area of interest.” *Id.* at 8:66–9:2.

The system also allows panning within the primary oblique image 102, detecting a transition event of the primary oblique image 102, selecting at least one adjacent secondary oblique image 104a–d, and displaying the primary oblique image 102 and at least one of adjacent secondary oblique images 104a–d on the same display such that the adjacent primary and secondary oblique images are aligned on the display. Ex. 1001, 9:3–14. The transition events can include: (1) displaying a specific portion of a primary oblique image 102; (2) reaching an edge of the primary oblique image 102 or a pre-selected distance from the edge; (3) a user-defined condition; or (4) reaching a region of the display area not covered by primary oblique image 102. *Id.* at 10:19–29.

An exemplary flow chart of a method for continually panning oblique images is illustrated in Figure 4, reproduced below.

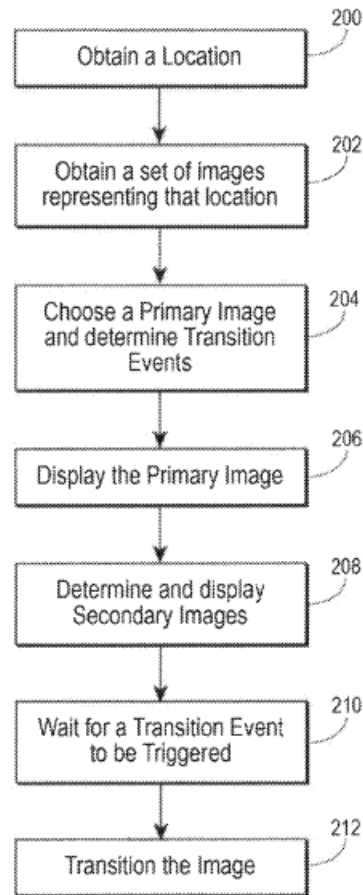


Fig. 4

Figure 4 illustrates an exemplary flow chart for a method for continually panning oblique images. Ex. 1001, Fig. 4, 6:3–5.

As shown in Figure 4, the system first obtains a relevant geographic location (step 200). Ex. 1001, 9:65–66. Next, a set of images representing that location is obtained, for example, from a database server (step 202). Then, the system determines which image from the obtained set best represents the geographic location and makes that image the primary oblique image 102. *Id.* at 10:11–14. In this step, the system also determines one or more transition events. *Id.* at 10:14–19. Next, the system displays the

primary oblique image 102 (step 206) and determines and displays the secondary oblique images 104a–d (step 208). *Id.* at 10:30–32. An algorithm is used to determine the best secondary oblique image for the particular location based on a variety of factors, such as the geographic location of the secondary oblique image, the direction from which the secondary oblique image was taken (*i.e.*, its orientation), the ground sample distance of the pixels within the secondary oblique image, and other selection criteria. *Id.* at 10:42–11:6. The best secondary oblique image 104a–d is displayed so that one or more common geographic locations on both images are adjacent to each other. *Id.* at 11:9–11.

Next, the system waits for a transition event to be triggered (step 210), and transitions the images when a Transition Event occurs (step 212).

Ex. 1001, 11:19–21. The system may transition the images by either (1) scrolling the primary oblique image 102 and using secondary oblique images 104a–d as needed to provide sufficient coverage, or (2) causing a new image to be the primary oblique image 102, positioning it appropriately, and providing sufficient coverage as needed with secondary oblique images 104a–d. *Id.* at 11:23–31. The transition to a new primary oblique image may be performed gradually “to allow the user to visually maintain a clear sight of the image features they are using for geographic referencing.” *Id.* at 11:32–48.

E. Illustrative Claims

Of challenged claims 1–16, claims 1 and 13–16 are independent. For purposes of this Decision, claim 1 is illustrative and is reproduced below.

1. [preamble] A sequence of instructions stored on at least one non-transitory computer readable medium for running on a

computer system capable of displaying and navigating oblique imagery, comprising:

- [a] instructions for displaying a pixel representation of a primary oblique image depicting a first area, the primary oblique image being part of a set of adjacent oblique images that partially, but not completely, overlap and represent an area of interest;
- [b] instructions for panning within the primary oblique image, the primary oblique image including overlapping data;
- [c] instructions for detecting a transition event, triggered by a user, of the displayed primary oblique image;
- [d] instructions for selecting at least one adjacent secondary oblique image depicting a second area partially overlapping with the first area and from the set of oblique images corresponding to a supplied location coordinate, the second area extending beyond the first area; and
- [e] instructions for displaying the primary oblique image and the at least one adjacent secondary oblique image on a same display such that features in the adjacent primary and secondary oblique images are aligned on the same display;
- [f] wherein the primary and secondary oblique images match the perspectives from which the primary and secondary oblique images were captured.

Ex. 1001, 12:18–43 (bracketed paragraph identifiers added).

II. DISCUSSION

A. Claim Construction

A claim “shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b).” 37 C.F.R. § 42.100(b).

Petitioner proposes that “no formal claim constructions are necessary” in this proceeding. Pet. 5. In the Patent Owner Response, Patent Owner “submits that all terms in the challenged claims of the ’518 Patent should be

construed according to their plain and ordinary meaning as would be understood by a [person of ordinary skill in the art] in light of the specification and prosecution history of the '518 patent.” PO Resp. 13.

Despite these statements, the parties’ arguments make clear that there exists a dispute about the proper construction of the term “primary oblique image” in claims 1 and 13–16. *See* Pet. 23–27; PO Resp. 21–29; Pet. Reply 9–12; PO Sur-reply 9–13. Accordingly, the construction of the term “primary oblique image” will be addressed below.

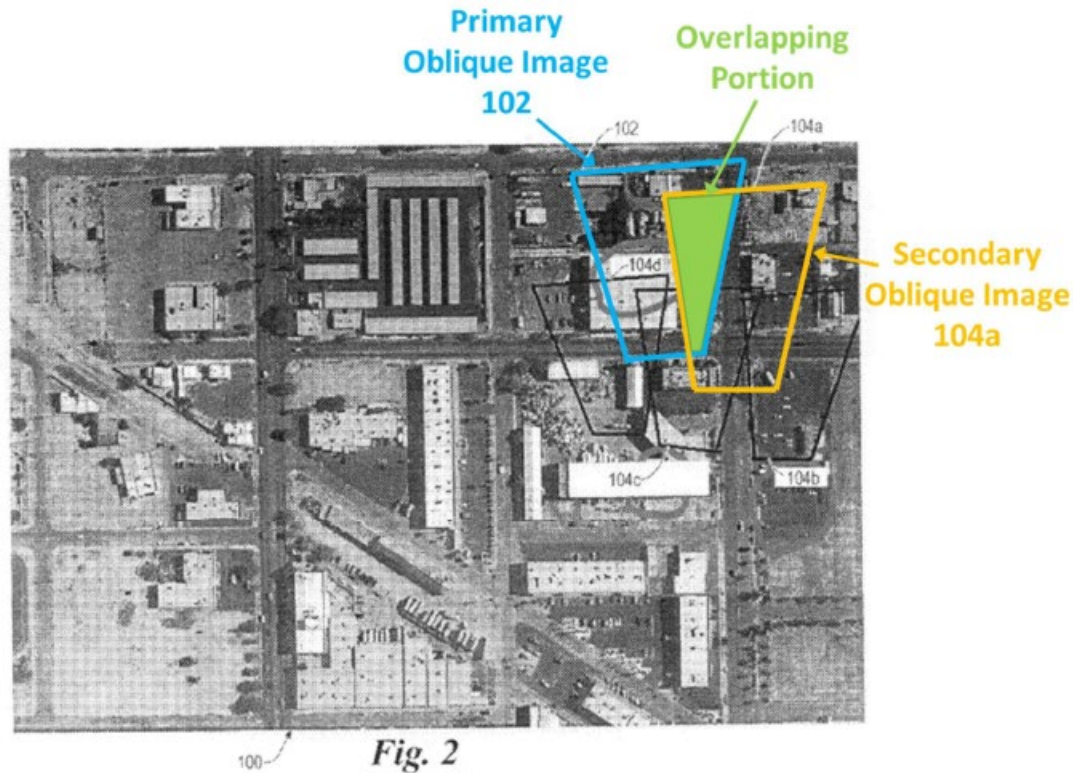
1. *“Primary Oblique Image”*

a) *The Parties’ Contentions*

Patent Owner argues that “[t]he ’518 patent explains that a ‘primary oblique image’ includes ‘a displayed oblique image that can be considered “in front of” the other displayed images.’” PO Resp. 21 (citing Ex. 1001, 6:31–34; Ex. 2007 ¶ 56). Patent Owner asserts that Dr. Forsyth testified that “this description is the ordinary and customary meaning of ‘primary oblique image’ as understood by” one of ordinary skill and that he “applied this understanding of a ‘primary oblique image’ in his analysis.” *Id.* at 21–22 (citing Ex. 2005, 76:5–19, 78:4–8); *see* PO Sur-reply 9. According to Patent Owner, Dr. Forsyth further testified that “the test for determining whether an image is a “primary oblique image” is whether the image is (1) an oblique image, (2) displayed, and (3) in front of the other displayed image(s).” *Id.* at 24–25 (citing Ex. 2005, 79:16–18). Moreover, Patent Owner contends, “in his second declaration Dr. Forsyth did not retract, modify, or otherwise attempt to clarify his prior testimony regarding the ordinary and customary meaning of ‘primary oblique image’ or the associated test for determining

whether an image is a ‘primary oblique image.’” PO Sur-reply at 9–10 (citing Ex. 1019, 25–30).

To illustrate how the ’518 patent uses “primary oblique images” and “secondary oblique images,” Patent Owner provides an annotated version of Figure 2, reproduced below.

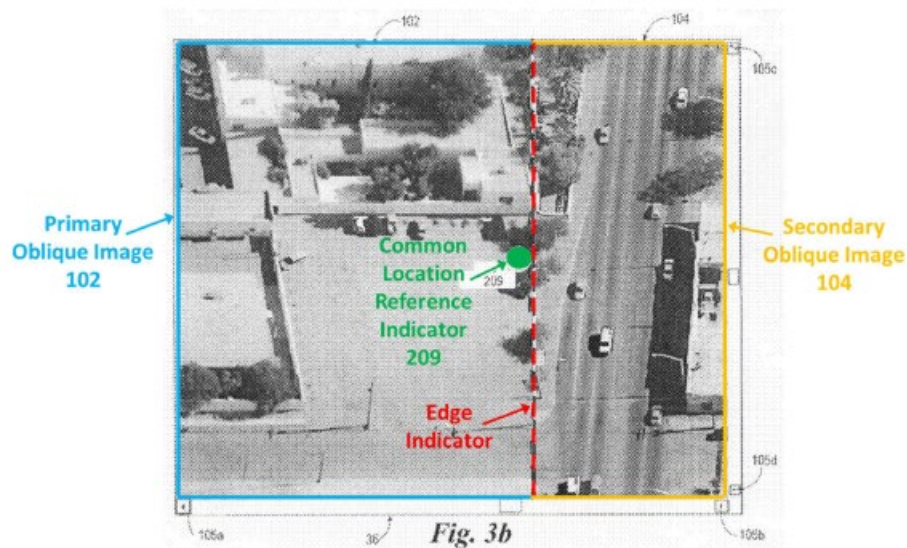
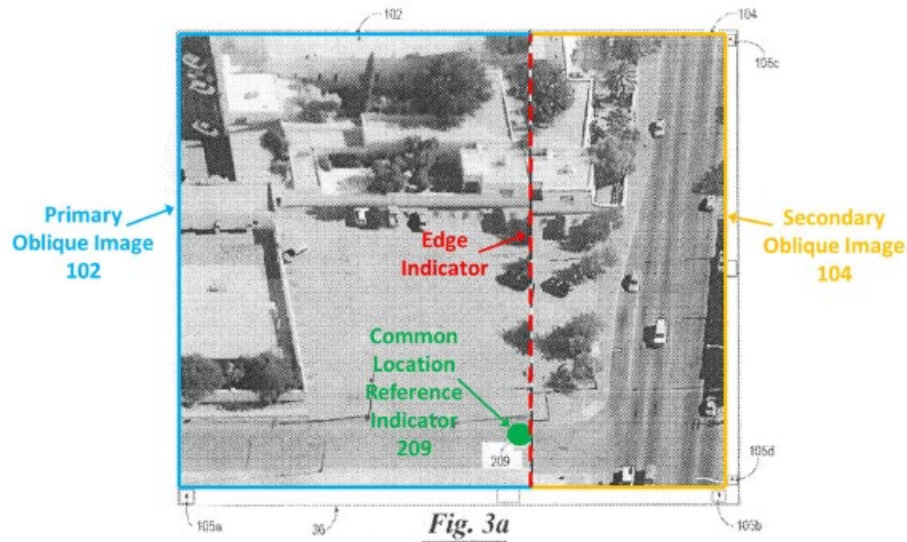


Patent Owner’s annotated version of Figure 2 of the ’518 patent showing master image 100, primary oblique image 102 (blue), secondary oblique image 104a (yellow), and an overlapping portion of the primary and secondary oblique images (green). PO Resp. 5–6.

Patent Owner explains that, as shown in annotated Figure 2, master image 100 “provides an indication of the portion of the area of interest that is captured by each image” and, “[f]or each oblique image,” includes “a polygon representing the portion of the area of interest captured by that image.” PO Resp. 6 (citing Ex. 1001, 5:6263, 6:28–30, 8:54–9:2, Fig. 2; Ex. 2007 ¶¶ 28–29). For example, Patent Owner asserts, in Figure 2 “the

polygon associated with the primary oblique image 102 (shown in blue) and the polygon associated with the secondary oblique image 104a (shown in yellow) have an overlapping portion (shown in green). *Id.* at 6–7 (citing Ex. 1001, 5:6263, 6:28–30, 8:54–9:2, Fig. 2; Ex. 2007 ¶¶ 28–29).

Patent Owner provides annotated versions of Figures 3a and 3b of the '518 patent, reproduced below, to illustrate how they “each provide a pictorial representation of a primary oblique image 102 and a secondary oblique image 104 with an edge indicator (identifying the edge of the primary oblique image 102) and a reference indicator 209 (identifying the location common to the two images).” PO Resp. 7 (citing Ex. 1001, 5:64–6:2, 11:49–61; Ex. 2007 ¶¶ 30–33).



Patent Owner's annotated versions of Figures 3a and 3b of the '518 patent providing an example of displaying a primary oblique image 102 and a secondary oblique image 104. PO Resp. 7–9, 22–23.

Patent Owner explains that, as shown in annotated Figures 3a and 3b above, the primary image 102 (blue) is *in front of* the secondary oblique image 104 (yellow). *Id.* at 24 (citing Ex. 1001, 5:64–6:2; 6:31–34; Ex. 2007 ¶ 58); *see id.* at 9 (citing Ex. 1001, 5:64–62, 6:31–34; Ex. 2007 ¶ 31). This can be seen, according to Patent Owner, by the fact that “in both Fig. 3a and Fig. 3b, the primary oblique image 102 shows the same visible area and the

edge indicator [(red)] associated with the primary oblique image 102 is in the same position (at the edge of the primary oblique image 102).” *Id.* “On the other hand,” according to Patent Owner, “the visible area shown in the secondary oblique image 104 is different between Figs. 3a and 3b due to the change in the relative positioning of the primary oblique image 102 *in front of* the secondary oblique image 104 based on the different positions of the Reference Indicator 209 between Figs. 3a and 3b.” *Id.* (emphasis added) (citing Ex. 1001, 5:64–6:2, 6:31–34; Ex. 2007 ¶ 58); *see id.* at 7–9.

In response, Petitioner argues that “[t]he ’518 patent does not require the ‘primary oblique image’ to be ‘in front of’ other images.” Pet. Reply 9. First, Petitioner argues that “the words ‘in front of’ do not appear in element [1a],” and that “the spatial relationship required between the ‘primary objective images’” in the claim and “other claimed images is that the images are *adjacent*.” *Id.* at 10 (citing Ex. 1001, 12:18–44; Ex. 1019 ¶ 26). Thus, according to Petitioner, “nothing in the claims requires a ‘primary oblique image’ to be ‘in front of’ other images.” *Id.* (citing Ex. 1019 ¶ 26).

Turning to the ’518 patent Specification, Petitioner acknowledges that the Specification “provides a term list titled ‘Terminology,’ that includes the term “primary oblique image.” Pet. Reply 10 (citing Ex. 1001,³ 6:25–7:12; Ex. 1019 ¶ 27). However, Petitioner contends, the text accompanying the term “primary oblique image” provides “*multiple* candidate descriptions” of the term, including (1) “a displayed oblique image that can be considered ‘in front of’ the other displayed images,” and (2) “a master image.” *Id.* at 10–11. According to Petitioner, “[n]othing in the ’518 specification provides

³ Petitioner cites to Ex. 1002 (the ’518 prosecution history), but this appears to be an error, as Ex. 1001 (the ’518 patent) matches the citation.

disclaimer to limit a ‘primary oblique image’ to *only* the first alleged definition.” *Id.* at 11 (citing Ex. 1019 ¶ 27). Additionally, Petitioner asserts, “the ’518 patent counsels against reading in *either* of these alleged definitions into the claim” because “just prior to [the] ‘Terminology’ list is text stating that the ‘phraseology and *terminology* employed herein is for purpose of description and *should not be regarded as limiting*.”” *Id.* (citing Ex. 1002, 6:18–21; Ex. 1019 ¶ 28). “Accordingly,” Petitioner contends, “it is inconsistent with the *intrinsic record* to read the phrase ‘in front of’ into the claims.” *Id.* (citing Ex. 1019 ¶ 28).

Petitioner also discounts the testimony of Dr. Forsyth cited by Patent Owner, describing that testimony as “favorable sound bites” that “do not change the *intrinsic record* or the scope of the independent claims.” Pet. Reply 11 (citing Ex. 1019 ¶ 29). Petitioner further argues that “expert testimony regarding the meaning of a claim term ‘should [be] discounted’ if the expert testimony is ‘clearly at odds with . . . the written record of the patent.’” *Id.* at 11–12 (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005); Ex. 1019 ¶¶ 29–30).

Patent Owner responds that Petitioner is incorrectly attempting “to twist the fact that a primary oblique image *can also be* a master image to suggest there is a second, alternative understanding of ‘primary oblique image’ other than being displayed ‘in front of’ other displayed images.” PO Sur-reply 10. To the contrary, Patent Owner argues, “master image” cannot be an alternative description or definition of “primary oblique image” because “the Terminology section of the ’518 Patent includes ‘master image’ as well,” and includes a separate definition for “master image” as “an oblique, orthogonal, or nadir image that is used as a reference for organizing

other images in the set.” *Id.* at 10–11 (citing Ex. 1001, 6:28–30). “Clearly,” Patent Owner contends, “a master image that is an orthogonal image or a nadir image cannot be considered an oblique image, let alone a ‘primary oblique image.’” *Id.* at 11. Thus, Patent Owner asserts, “when the ’518 patent notes that a ‘primary oblique image *can also be* as master image,” it “is not providing an alternative understanding or definition” of “primary oblique image,” but instead “is simply noting that in some instances ‘a primary oblique image’ can serve an additional function—being a master image.” *Id.* Thus, according to Patent Owner, “[t]he claims cover ‘a primary oblique image’ that is displayed ‘in front of’ a secondary oblique image, whether or not the primary oblique image also serves as a master image.” *Id.*

Patent Owner also argues that “Petitioner does not set forth an alternative definition for ‘primary oblique image,’” and indeed “fails to provide *any definition* that would allow a [person of ordinary skill in the art] to distinguish the claimed ‘primary oblique image’ from the claimed ‘secondary oblique image(s).” PO Sur-reply 12 (citing Pet. Reply 1). “Accordingly,” Patent Owner contends, “adopting Petitioner’s position leads to the untenable situation of eliminating the distinction between a ‘primary oblique image’ and a ‘secondary oblique image.’” *Id.*

At the hearing, Petitioner took the position, for the first time, that the term “primary” in “primary oblique image” “is just some modifier given to the word to distinguish between a first and a second oblique image in the claim, so that when they refer to these terms in the claim, they resolve any antecedent basis issues.” Tr. 6:14–17. Thus, according to Petitioner, a “primary” and “secondary” oblique images means the same as a “first” and

“second” oblique images, in that they are “just an introduction that allows you to distinguish between the first and second [oblique images] but doesn’t have any spatial or visual significance.” *Id.* at 6:19-7:3; *see id.* at 13:14–21.

b) Analysis

Based on the full trial record, we find that the evidence supports Patent Owner’s construction of the term “primary oblique image” as “a displayed oblique image that can be considered ‘in front of’ the other displayed images.” This construction is supported by the ’518 patent Specification, which includes a listing of “Terminology” that contains the following definition for the term “primary oblique image”:

Primary oblique image—a displayed oblique image that can be considered ‘in front of’ the other displayed images. The primary oblique image can also be a master image.

Ex. 1001, 6:25:31–34.

Dr. Forsyth agreed that this definition is the ordinary and customary meaning of the term “primary oblique image” and is the understanding used in the rest of the Specification, as shown in the testimony from Dr. Forsyth’s deposition reproduced below.

Q: Okay. Let’s turn to the ’518 patent at Column 6, line 25.

A: Column 6, line 25. I’m at Column 6, line 25.

Q: Do you see the word “terminology”?

A: I do.

....

Q: What is the ’518 patent describing here?

A: ***It is describing the terminology that it uses in the rest of the specification.***

Q: Is the terminology from Column 6, line 25, to Column 7, line 12, the ordinary and customary meanings of those terms?

A: We'd have to do that term by term. It's not an analysis I did in the declaration in detail.

....

“Primary oblique image,” that appears to be ordinary and customary or something very close to it.

Ex. 2005, 75:18–76:19 (emphasis added).

After going through the various definitions, Dr. Forsyth also testified that he used these understandings in his analysis:

Q: Thank you for going through those.

Are those understandings the ones you used in your analysis?

A: ***Are those understandings the ones I used in my analysis.***

Yes.

Ex. 2005, 78:3–8 (emphasis added).

Additionally, Dr. Forsyth described the test for determining whether something is a “primary oblique image” as including a determination of whether the image is “in front of” another displayed image:

Q: In Figure 3a [of the '518 patent], is image 102 a primary oblique image?

A: In Figure 3a, is image 102 a primary oblique image.

The test for being a primary oblique image is: Is it a displayed oblique image – and it is – that can be considered in front of the other displayed image. It appears to be in front of the other displayed image to the extent that I can determine from the image.

Ex. 2005, 79:12–20 (emphasis added); *see id.* at 79:25–80:7 (applying this test to Figure 3b and determining that image 102 is a “primary oblique image” because “it’s in front of the other displayed images, or it appears to be so”). Consistent with this testimony, Dr. Forsyth explained that image 102 in Figures 3a and 3b of the '518 patent Specification are “primary oblique images” because they are displayed “in front of” the other displayed

images. *Id.* at 78:25–80:7. Thus, the ’518 patent’s examples show the primary oblique images being “in front of” other images, and are consistent with the terminology definition provided by the Specification.

In contrast to this evidence introduced by Patent Owner, Petitioner introduces no evidence to support a contrary definition. In its briefing, Petitioner provides no construction for the term “primary oblique image,” and merely criticizes Patent Owner’s construction. *See* Pet. 5–6, 23–27; Pet. Reply 2–12. Although Petitioner argued for the first time at the oral hearing that the terms “primary” and “secondary” when applied to oblique images had no significance other than to distinguish one oblique image from another, and thus had the same meaning as “first” and “second” oblique images, Petitioner introduced no evidence to support this position. *See* Tr. 6:14–17, 6:19–7:3; *see id.* at 13:14–21. Indeed, when asked at the hearing where the evidence was that supported Petitioner’s newly-offered construction, Petitioner’s counsel responded that “I don’t have anything that I could cite to that particular evidence at this time.” *Id.* at 14:20–25.

Additionally, we are not persuaded by Petitioner’s arguments against Patent Owner’s proposed construction. First, Petitioner argues that the meaning of “primary oblique image” in the “Terminology” section of the Specification can be disregarded because the ’518 patent Specification includes broad language describing the Specification as non-limiting. *See* Pet. Reply 9. This language is reproduced below:

Before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction, experiments, exemplary data, and/or the arrangement of the components set forth in the following description or illustrated in the drawings.

The invention is capable of other embodiments or of being practiced or carried out in various ways. ***Also, it is to be understood that the phraseology and terminology employed herein is for purpose of description and should not be regarded as limiting.***

Ex. 1001, 6:10–21 (emphasis added). The Specification concludes with similar language:

Although the foregoing invention has been described in some details by way of illustration and example for purposes of clarity of understanding, it will be obvious to those skilled in the art that certain changes and modifications may be practiced without departing from the spirit and scope thereof, as described in this specification and as defined in the appended claims below.

Ex. 1001, 12:9–15.

Petitioner focuses on the statement above that the “terminology” is “for purpose of description” and “should not be regarded as limiting.” Pet. Reply 9. However, Petitioner does not point to anything else in the Specification that would suggest a different meaning for “primary oblique image” other than what is set forth in the “Terminology” portion of the ’518 patent. And, as noted above, Petitioner introduces no evidence of what the ordinary meaning of a “primary oblique image” is. Indeed, Petitioner’s own expert, Dr. Forsyth, testified that the understanding of “primary oblique image” in the “Terminology” section “appears to be ordinary and customary or something very close to it,” is the understanding he used in his analysis, and forms part of the test he applied for determining whether something is a “primary oblique image.” Ex. 2005, 76:2–19, 78:3–8, 79:12–80:7.

Moreover, it is unclear what the purpose would be of including in the Specification what appears to be a definition of “primary oblique image” if that definition were to have no applicability. And, finally, the mere

generalized statement in the Specification that the embodiments and terminology “should not be regarded as limiting” does not itself support an alternative definition of “primary oblique image,” or provide evidence of what such an alternative definition would be.

Second, we are not persuaded by Petitioner’s argument that “the words ‘in front of’ do not appear in element [1a],” and that “the spatial relationship required between the ‘primary objective images’” in the claim and “other claimed images is that the images are *adjacent*.” See Pet. Reply 10 (citing Ex. 1001, 12:18–44; Ex. 1019 ¶ 26). The fact that the words “in front of” do not appear in the claim itself does not shed light on the key issue here—the meaning of “primary oblique image.” Similarly, the fact that the claims require that the secondary oblique image be “adjacent” to and “partially overlapping” the first oblique image does not answer what a “primary oblique image” is. A “primary oblique image” can be both “in front of” a secondary oblique image and adjacent to and partially overlapping it. Thus, we find that the claim language itself does not shed light on the proper construction of “primary oblique image.”

Third, we do not agree with Petitioner’s argument that the “Terminology” portion of the Specification provides “*multiple* candidate descriptions” of the term “primary oblique image,” including one defining it as “a master image.” See Pet. Reply 10–11. The “Terminology” section of the Specification defines a “master image” as “an oblique, orthogonal, or nadir image that is used as a reference for organizing other images in the set.” Ex. 1001, 6:28–30. On its face, this definition of “master image” makes no sense as a definition of the term “primary oblique image” because a “primary *oblique* image” cannot be a nadir image, which is expressly

included within the scope of a “master image.” Indeed, the Specification expressly distinguishes an oblique image from a nadir image, explaining that “an oblique image, by definition, is captured at an angle” and “shows the sides of objects and structures,” while a “nadir image” is “an image captured with the camera pointing straight down.” *Id.* at 1:39–40, 2:26–28.

Additionally, the Specification uses permissive language when stating that “[t]he primary oblique image *can* also be a master image.” *See id.* at 6:33–34 (emphasis added). Consequently, we interpret the Specification as providing that a “primary oblique image” is “a displayed oblique image that can be considered ‘in front of’ the other displayed image,” and may also be, but need not be, a “master image.”

Finally, we are not persuaded by Petitioner’s argument that the testimony of Dr. Forsyth cited by Patent Owner should be discounted because it amounts to merely “favorable sound bites” that “does not change the *intrinsic record* or the scope of the independent claims.” *See* Pet. Reply 11 (citing Ex. 1019 ¶ 29). To support its position, Petitioner cites *Phillips* for the proposition that “expert testimony regarding the meaning of a claim term ‘should [be] discounted’ if the expert testimony is ‘clearly at odds with . . . the written record of the patent.’” *See id.* at 11–12 (citing *Phillips*, 415 F.3d at 1318; Ex. 1019 ¶¶ 29–30). Here, however, Dr. Forsyth’s testimony is consistent with and applies the understanding of “primary oblique image” contained in the “Terminology” portion of the ’518 patent Specification, which is part of the intrinsic record. The testimony therefore is not “at odds with,” the written record of the patent.

Consequently, based on the evidence of record, we construe the term “primary oblique image” as “a displayed oblique image that can be considered ‘in front of’ the other displayed images.”

2. Other Terms

We determine that it is not necessary to provide an express interpretation of any other claim terms for purposes of this Decision. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

B. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103 if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, objective evidence of non-obviousness.⁴ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re*

⁴ Patent Owner has not presented objective evidence of non-obviousness in this proceeding.

Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)). Whether a combination of prior art elements would have produced a predictable result weighs in the ultimate determination of obviousness. *Id.* at 416–417.

In an *inter partes* review, the petitioner must show with particularity why each challenged claim is unpatentable. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); 37 C.F.R. § 42.104(b) (2020). The burden of persuasion never shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

C. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art at the time of the alleged invention would have had “at least a Bachelor’s Degree in an academic area emphasizing the design of electrical, computer, or software technologies, or a similar discipline, and at least two years of experience related to computerized image analysis and three-dimensional modeling.” Pet. 5 (citing Ex. 1003 ¶ 16). Petitioner further asserts that “[s]uperior education could compensate for a deficiency in work experience and vice-versa.” *Id.* Patent Owner does not address the level of ordinary skill. *See generally* PO Resp.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art, which is consistent with the ’518 patent and the prior art.

D. Grounds 1A⁵ and 1B: Asserted Obviousness of Claims 1 and 3–16 Based on Snavely in view of Balfour and Irani (Ground 1A) and Asserted Obviousness of Claim 2 Based on Snavely in view of Balfour, Irani, and Yelton (Ground 1B)

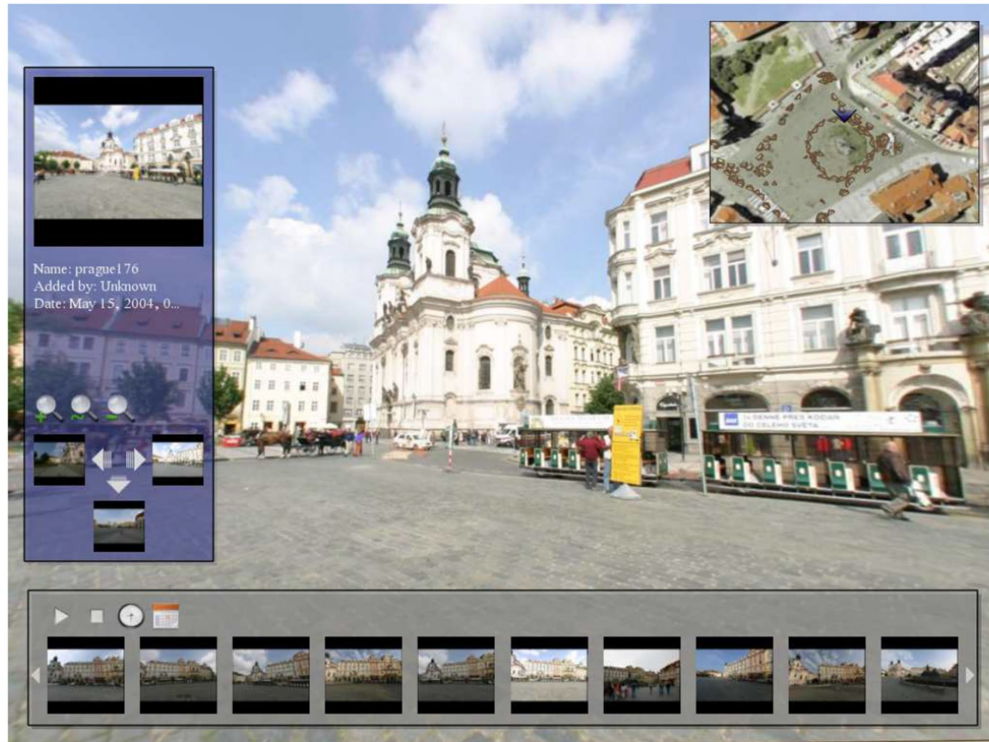
Petitioner contends that claims 1 and 3–16 would have been obvious over Snavely in view of Balfour and Irani, and that claim 2 would have been obvious over Snavely in view of Balfour, Irani, and Yelton. Pet. 2, 6–49; Pet. Reply 8–26. Patent Owner disagrees. PO Resp. 14–66; PO Sur-reply 1–22.

1. Snavely (Ex. 1004)

Snavely is an article entitled “Photo Tourism: Exploring Photo Collections in 3D,” and “present[s] a system for interactively browsing and exploring large unstructured collections of photographs of a scene using a novel 3D interface.” Ex. 1004, 1. The system “consists of an image-based modeling front end that automatically computes the viewpoint of each photograph as well as a sparse 3D model of the scene and image to model correspondences.” *Id.*, Abstr. Snavely also includes a “photo explorer” that “uses image-based rendering techniques to smoothly transition between photographs, while also enabling full 3D navigation and exploration of the set of images and world geometry.” *Id.* (emphasis omitted).

Snavely illustrates “a screen shot from the main window of our photo exploration interface” in Figure 5, reproduced below.

⁵ Here, and elsewhere in the Decision, the identification of the grounds using designations such as “Ground 1A” and “Ground 1B” refers to the designation of the grounds as presented in the Petition.



Snave's Figure 5 illustrates a screen shot from the main window of the system's photo interface. Ex. 1004, Fig. 5, 5–6.

As Snave explains, the components of the window of Figure 5 include “the main view, which fills the window, and three overlay panes: an information and search pane on the left, a thumbnail pane along the bottom, and a map pane in the upper-right corner.” Ex. 1004, 5. The main view “shows the world as seen from a virtual camera controlled by the user,” the information and search pane “contains controls for searching for other photographs with certain geometric relations to the current photo,” and the thumbnail pane “shows the results of search operations as a filmstrip of thumbnails.” *Id.*

Snave also discloses that the user interface “generate[s] transitions when the user moves between photos in the explorer,” by using “geometric information we infer about the photographs” and “camera motion and view interpolation to make transitions more visually compelling and to emphasize the special relationship between the photographs.” Ex. 1004, 6. During

camera transitions, the system also “display[s] in-between images” by “morphing between the start and destination photographs.” *Id.* For example, a morph can be created between two images by projecting them onto a common plane and cross-fading between the projected images as the camera moves from one position to another. *Id.*

The parties dispute whether Petitioner has sufficiently shown that Snavelly qualifies as prior art to the ’518 patent. Pet. 2; PO Resp. 59–65; Pet. Reply 26–29; Exs. 1015, 1016, 1020. Because, as discussed below, we find that Petitioner has failed to establish that the challenged claims would have been obvious over the asserted prior art, we need not resolve whether Snavelly is prior art for purposes of this Decision.

2. *Balfour (Ex. 1005)*

Balfour is a U.S. Patent titled “System for Viewing a Collection of Oblique Imagery in a Three or Four Dimensional Virtual Scene,” and generally relates to “selecting oblique images from a collection of geo-referenced oblique images and viewing them within the context of a virtual, three- or four-dimensional (3D space and time) geographic scene.” Ex. 1005, code (54), code (57). The preferred embodiment of Balfour’s invention “works within the context of a 3D or 4D viewer computer program which provides the rendering of and user interaction with a computer-generated virtual scene.” *Id.* at 2:16–19. “The user, preferably using a pointing device . . . maneuvers through a 3D virtual (i.e. computer-generated) scene presented to the user on a display device.” *Id.* at 2:41–45. The system “automatically selects and retrieves the ‘best fit’ oblique image from an image warehouse for the user[’s] current viewpoint” and “presents the oblique image to the user geo-registered within the context of the 3D

virtual scene.” *Id.* at 2:34–40. If, at a future point, “the best fit determination identifies a new image,” the “current oblique image is set to this new oblique image.” *Id.* at 7:8–10 (reference numerals omitted).

3. *Irani (Ex. 1007)*

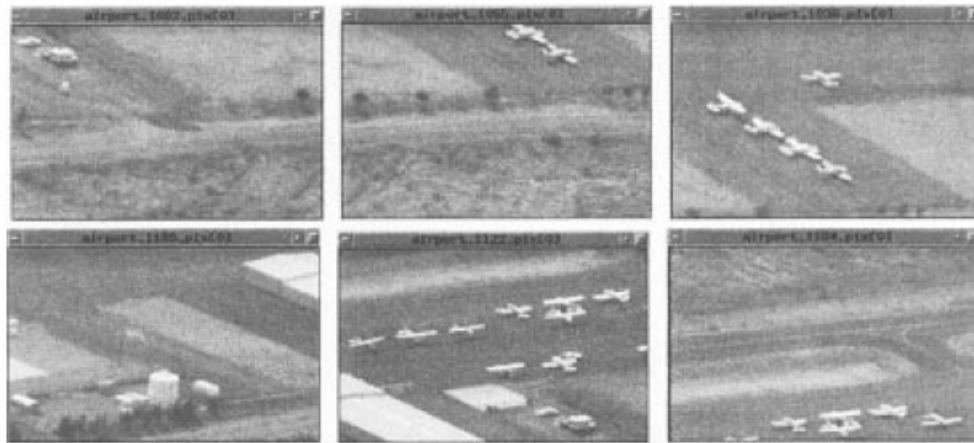
Irani is directed to “a new approach for efficient access, storage, and manipulation of video data,” which is “based on the fact that a video sequence contains many views of the same *scene* taken over time.”

Ex. 1007, 905, col. 2. The proposed system “transform[s] the video data from a sequential *frame-based* representation, in which this common scene information is *distributed* over many frames, into a single common *scene-based* representation to which each frame can be *directly* related.” *Id.* “This representation then allows *direct* and *immediate* access to the *scene* information, such as static locations and dynamically moving objects” and “eliminates the redundancy between the different views of the scene contained in the frames.” *Id.* Irani explains that this technique results in “a highly efficient and compact representation of the video information” which allows “direct and efficient access to and manipulation of the video information” as well as “efficient storage and transmission of the video data.” *Id.*

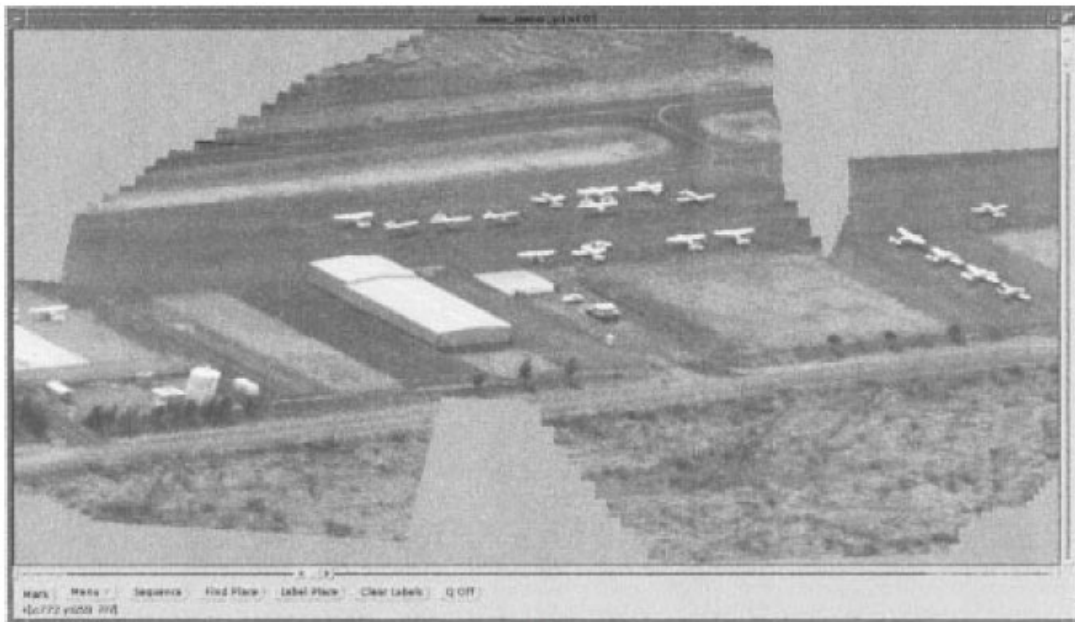
As part of the proposed system, Irani generates a “panoramic mosaic image” that “captures an extended spatial view of the entire scene visible in the video clip in a single (or sometimes a few) ‘snapshot images,’” creating an image that “captures the appearance of the *static* portions of the scene.” Ex. 1007, 907, col. 1. The mosaic image “is constructed by first aligning all the frames with respect to the common coordinate system” and then “integrating all these frames to form a single image.” *Id.* This mosaic

representation “removes the redundancy contained in the overlay between successive frames and represents each spatial point only once.” *Id.*

The construction of this mosaic image is illustrated in Irani’s Figure 1, reproduced below.



(a)



(b)

Figure 1 of Irani shows representative frames from a video clip (a) and a static background mosaic image created from the video clip (b). Ex. 1007, 4, Fig. 1.

Figure 1 illustrates a “[s]tatic background mosaic of an airport video clip. Ex. 1007, 908, Fig. 1. Figure 1(a) shows “[a] few representative frames

from [a] minute-long video clip” that “shows an airport being imaged from the air with a moving camera” in a static scene with no moving objects. *Id.* Figure 1(b) shows “[t]he static background mosaic image, which provides an extended view of the entire scene imaged by the camera in the one-minute video clip.” *Id.*

The parties dispute whether Petitioner has sufficiently shown that Irani qualifies as prior art to the ’518 patent. Pet. 2; PO Resp. 59–66; Pet. Reply 26–29; Exs. 1015, 1016, 1020. Because, as discussed below, we find that Petitioner has failed to establish that the challenged claims would have been obvious over the asserted prior art, we need not resolve whether Irani is prior art for purposes of this Decision.

4. Proposed Combination of Snavelly, Balfour, and Irani

In Petitioner’s proposed combination, “Snavelly’s ‘3D interface’ for ‘interactively browsing and exploring’ images of a scene is augmented based on Balfour’s teachings to ‘make[] it possible to automatically select and display oblique images within the’ scene.” Pet. 12 (citing Ex. 1004, Abstr.; Ex. 1004, 1:36–44, 2:14–19; Ex. 1003 ¶ 27) (alteration in original). “In the combination,” according to Petitioner, “Balfour’s techniques ‘work within the context of’ Snavelly’s 3D interface, ‘which provides the rendering of and user interaction with a computer-generated virtual scene.’” *Id.* (citing Ex. 1005, 2:17–19; Ex. 1004, Abstr.; Ex. 1003 ¶ 27). Additionally, Petitioner contends, in the proposed combination “Snavelly’s photo explorer, [which] uses image-based rendering techniques to smoothly transition between photographs,’ aligns neighboring images ‘with respect to [a] common coordinate system,’” as taught by Irani, “thereby ‘remov[ing] the redundancy contained in the overlap between’ images.” *Id.* at 17 (citing

Ex. 1004, Abstr.; Ex. 1007, 905, 907; Ex. 1003 ¶ 36) (alterations in original).

Petitioner argues that one of ordinary skill would have been motivated to modify Snavely with Balfour “because Balfour specifically teaches that its techniques are designed to operate within and improve ‘3D viewer’ applications like the one described in Snavely.” Pet. 13 (citing Ex. 1005, 1:65–2:3; Ex. 1003 ¶ 28). “For example,” Petitioner asserts, “Snavely describes ‘a system for *interactively browsing and exploring* large unstructured collections of photographs of *a scene using a novel 3D interface*,” and “Balfour states that the ‘preferred embodiment of’ its ‘invention *works within the context of a 3D . . . viewer computer program* which *provides the rendering of and user interaction with a computer-generated virtual scene*.’” *Id.* (citing Ex. 1004, Abstr; Ex. 1005, 2:16–19; Ex. 1003 ¶ 29). Additionally, according to Petitioner, “Balfour describes that its techniques ‘*provide a natural and easy interface for the user to effectively and efficiently access and analyze oblique imagery from a large image warehouse*,” and explains that “[e]ntire cities and states are beginning to take aerial inventories” of “their geographic and cultural features in great detail” which “*information is quite valuable* if the large warehouses of oblique imagery can be easily accessed.” *Id.* at 13–14 (citing Ex. 1005, 1:37–44, 1:59–61; Ex. 1003 ¶ 30). Petitioner contends that one of ordinary skill would “have been further motivated to incorporate Balfour’s techniques into Snavely’s system to obtain access to this ‘valuable’ information.” *Id.*

Additionally, Petitioner asserts, one of ordinary skill “would have been motivated to incorporate Balfour’s techniques into Snavely’s system in order to ‘select and retrieve[]’ a specific image type from an image storage

device that is a “‘best-fit’ oblique image,” which “would be ‘selected as the best geographic fit based on the user’s current viewpoint and orientation.’” Pet. 14 (citing Ex. 1005, 2:33–37, 2:56–60; Ex. 1003 ¶ 31) (alteration in original). Petitioner further argues that the combination would have “led to predictable results without altering or hindering the functions performed by the combined system,” and one of ordinary skill “would have had a reasonable expectation of success in making this modification.” *Id.* at 14–15 (citing Ex. 1003 ¶¶ 32–33).

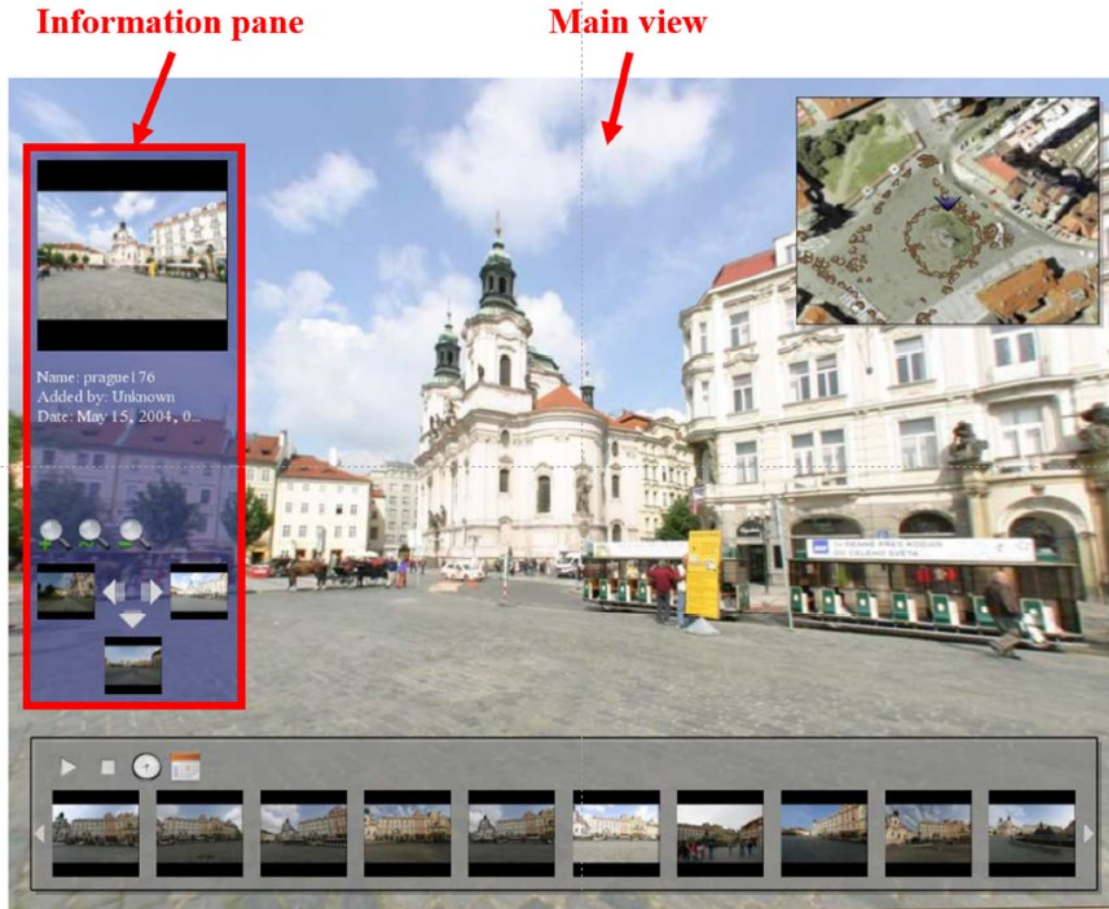
With respect to Irani, Petitioner argues that one of ordinary skill “would have been motivated to modify the Snavelly-Balfour combination to align images to remove redundancy as taught by Irani.” Pet. 18 (citing Ex. 1007, 905, 2:17–26; Ex. 1003 ¶ 38). According to Petitioner, “Irani notes the ‘very high cost’ of image redundancy in overlapping images,” and one of ordinary skill “would have looked to Irani’s teachings to achieve the benefit of ‘remov[ing] . . . redundancy contained in the overlap . . . [to] represent[] each spatial point only once.’” *Id.* at 19 (citing Ex. 1007, 907, 1:17–19; Ex. 1003 ¶ 40) (alterations in original). Petitioner also argues that one of ordinary skill “would have been motivated to modify the combination of Snavelly-Balfour to incorporate Irani’s teachings in order to ‘align each frame of’ a mosaic,” which “would include an alignment of images in order to match the perspectives of adjacent images.” *Id.* at 18 (citing Ex. 1007, 917; Ex. 1003 ¶ 39). According to Petitioner, one of ordinary skill would have recognized that these “image alignment techniques also provide the technological benefit of ‘compensat[ing] for camera-induced motion’ associated with images of a particular scene.” *Id.* Additionally, Petitioner contends, “[b]oth the Snavelly-Balfour combination and Irani relate to types

of systems that enable the organization and viewing of collections of images.” *Id.* at 19 (citing Ex. 1007, 905; Ex. 1004, Abstr.; Ex. 1003 ¶41).

5. Analysis of Independent Claims 1 and 13–16

Independent claim 1 recites “displaying a pixel representation of a primary oblique image depicting a first area,” “selecting at least one adjacent secondary oblique image depicting a second area partially overlapping with the first area,” and “displaying the primary oblique image and the at least one adjacent secondary oblique image on a same display such that the features in the adjacent primary and secondary images are aligned on the same display.” Ex. 1001, 12:22–40. Independent claims 13–16 recite similar limitations of displaying a primary oblique image depicting a first area and a secondary oblique image partially overlapping the first area such that features of the primary and secondary images are aligned on the same display. *Id.* at 13:30–47 13:58–14:9, 14:18–33, 14:44–61.

Petitioner relies on Snavely for the “primary” and “secondary” oblique images, and includes an annotated version of Snavely’s Figure 5, reproduced below, to illustrate its argument.



Petitioner's annotated version of Snavey's Figure 5 illustrating the "main view" and "information pane" of the main window of Snavey's user interface. Pet. 23

Petitioner explains that "[t]he components of this window are the main view, which fills the window and . . . an information and search pane on the left' overlaying the main view." Pet. 24 (quoting Ex. 1004 § 5.1). Petitioner argues that "[t]he 'main view' image of Snavey (above) is an example of a 'primary oblique image' because it is displayed as a master image, depicting a first area (e.g., a plaza with white buildings)." Pet. Reply 13 (citing Ex. 1019 ¶ 32). "In addition," Petitioner continues, "Snavey FIG. 5 also depicts a set of secondary oblique images, shown in the thumbnail image pane (annotated above), that partially overlap with the first area (e.g., aforementioned plaza and white buildings)." *Id.* In its combination,

according to Petitioner, “Balfour teaches selection of a second oblique image (e.g., an oblique image from the thumbnail pane of Snively) that matches the perspectives of a first oblique image (e.g., oblique image in main view of Snively) and then aligns features of the first and second oblique images using Irani’s teachings.” *Id.* at 14 (citing Pet. 11–19, 30–35; Ex. 1019 ¶ 34).

Patent Owner responds that Petitioner’s argument fails to account for the fact that a “primary oblique image” must be “in front of” the other displayed images. PO Resp. 21–29. Patent Owner asserts that what Petitioner identifies in Snively as the “primary oblique image”—the image the user is currently visiting displayed in the main view—“is *behind* all of the other displayed images and, therefore, necessarily cannot be considered ‘in front of’ the other displayed images.” *Id.* at 25 (citing Ex. 2005, 25:6–12, 28:5–19, 54:8–25; Ex. 2007 ¶ 60). To illustrate its argument, Patent Owner provides an annotated version of Snively’s Figure 5, reproduced below.



Patent Owner’s annotated version of Snavely’s Figure 5 showing the main view behind the overlay panes, and the information pane, thumbnail pane, and map pane in front of the main view. PO Resp. 26.

According to Patent Owner, “both experts agree that the main view image of Snavely is behind the images displayed in the overlay panes and cannot be considered ‘in front of’ [] the other displayed images.” *Id.* at 25. Additionally, Patent Owner contends that “[t]he fact that the main view image is **behind** the images shown in the map pane, the information pane, and the thumbnail pain is explicitly confirmed by the fact that Snavely refers to these panes as ‘overlay panes,’” and asserts that “[b]oth experts agree that

an overlay pane is something that is ‘on top of or in front of’ the main display.” *Id.* at 26–27 (citing Ex. 2005, 28:5–19; Ex. 2007 ¶¶ 61). Finally, Patent Owner argues, “Dr. Forsyth testified that he would not consider images in the overlay panes, such as the images in the thumbnail pane or the top image of the information pane, to be a ‘primary oblique image’ and instead ‘would normally think of it as a secondary oblique image,’” and that he did not rely in his declaration “on the images in the overlay panes to be the claimed ‘primary oblique image.’” *Id.* at 27–28 (citing Ex. 2005, 25:6–12, 25:19–23, 54:8–25; Ex. 2007 ¶¶ 62–63). Thus, Patent Owner contends, “the Petition entirely fails to establish that Snavelly displays an image that meets the requirements of a ‘primary oblique image.’” *Id.* at 28.

Petitioner responds that Patent Owner’s argument “is premised on an incorrect interpretation of ‘primary oblique image,’ which requires a ‘primary oblique image’ to be *in front of* other images.” Pet. Reply 9. When this requirement is eliminated, Petitioner asserts, “Petitioner’s combination discloses displaying a ‘primary oblique image’ and ‘at least one adjacent secondary oblique image’ in the main view of Snavelly,” as previously discussed. *Id.* at 12–14.

Based on the full trial record, we find that Petitioner has not sufficiently shown that the proposed combination includes a “primary oblique image” as properly construed. As discussed above, we construe the term “primary oblique image” to require “a displayed oblique image that can be considered ‘in front of’ the other displayed images.” *See supra* § II.A.1(b). In its papers, Petitioner does not demonstrate that Snavelly discloses a “primary oblique image” that can be considered “in front of” the other displayed images. To the contrary, we agree with and find credible

Dr. Bajaj’s testimony that the “main view” of Snavely’s Figure 5, which Petitioner points to as the “primary oblique image,” is “**behind** the other displayed images in overlay panes,” such as the information pane, thumbnail pane, and map pane, and “therefore, necessarily cannot be considered ‘in front of’ the other displayed images.” Ex. 2007 ¶ 60; *see* Ex. 1004, Fig. 5; PO Resp. 26.

Our conclusion is also supported by the fact that Snavely refers to the information, map, and thumbnail panes as “overlay panes.” Ex. 1004, 5 (“The components of this window are the main view, which fills the window, and **three overlay** panes: an information and search pane on the left, a thumbnail pane along the bottom, and a map pane in the upper-right corner.”). We agree with and find credible Dr. Bajaj’s testimony that Snavely’s description of these panes as “overlay” panes confirms that “the main view image is **behind** the images shown in the map pane, the information pane, and the thumbnail pane.” Ex. 2007 ¶ 61 (citing Ex. 1004, 5). Additional support is found in Dr. Forsyth’s deposition testimony, where he explained that one of ordinary skill would have understood “overlay panes” to be “on top of” a main display:

Q: When – excuse me – Snavely describes these as “overlay panes,” what does Snavely mean by that?

A: I can sketch what a [person of ordinary skill in the art] would have understood by “overlay panes” at the time. That is, ***displays or other images or windows or information displays that are placed on top of a main display***. There is often – but I’m not sure if there is always – the option to close those and simply view the main display and cover them.

Q: Okay. So generally speaking, ***an overlay pane***, as you just described it, ***is something that’s on top of or in front of the main display*** and you may be able to hide it or not?

A: *I believe that's a reasonable general description.*

Ex. 2005, 28:5–19 (emphasis added).

For these reasons, Petitioner has failed to show that Snavelly, and therefore the proposed combination, teaches a “primary oblique image” as properly construed. Consequently, Petitioner has failed to prove by a preponderance of the evidence that claims 1 and 13–16 would have been obvious over the Snavelly-Balfour-Irani combination.

6. *Claims 2–12*

Claims 2–12 are dependent on claim 1. Because, as discussed above, Petitioner has not proven by a preponderance of the evidence that claim 1 is unpatentable, Petitioner necessarily has not proven that dependent claims 2–12 are unpatentable.

E. *Patent Owner's Motion to Strike and Motion to Exclude*

Patent Owner filed a Motion to Strike certain portions of the Third Munford Declaration (Exhibit 1020) and its Appendices, which Petitioner submitted to show that Snavelly and Irani were publicly accessible before the critical date of the '518 patent. Paper 30. Patent Owner also filed a Motion to Exclude certain Appendices of the Second Munford Declaration (Exhibit 1016) and Third Munford Declaration, which Petitioner also submitted to show public accessibility of Snavelly and Irani. Paper 35. Because, as discussed above, we find that Petitioner has not proven by a preponderance of the evidence that the challenged claims would have been obvious over Snavelly, Balfour, Irani, and Yelton, we need not reach whether Petitioner has sufficiently shown that Snavelly and Irani were publicly accessible before the critical date. We, therefore, deny Patent Owner's Motion to Strike and Motion to Exclude as moot.

III. CONCLUSION

For the reasons discussed above, Petitioner has not proven, by a preponderance of the evidence, that the challenged claims are unpatentable, as summarized in the following table:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 3–16	103(a)	Snavelly, Balfour, Irani		1, 3–16
2	103	Snavelly, Balfour, Irani, Yelton		2
Overall Outcome				1–16

IV. ORDER

Accordingly, it is

ORDERED that claims 1–16 of the '518 patent have not been proven by a preponderance of the evidence to be unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2022-00735
Patent 8,593,518 B2

For PETITIONER:

Walter Renner
Thomas Rozylowicz
Dan Smith
Patrick Damo
Patrick Bisenius
Craig Deutsch
Yao Wang
FISH & RICHARDSON P.C.
Axf-ptab@fr.com
tar@fr.com
dsmith@fr.com
darno@fr.com
bisenius@fr.com
deutsch@fr.com
ywang@fr.com

For PATENT OWNER:

Kyle Howard
Gregory Webb
Jonathan Bowser
HAYNES AND BOONE, LLP
Kyle.howard.ipr@haynesboone.com
Greg.webb.ipr@haynesboone.com
Jon.bowser.ipr@haynesboone.com