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Paper 11
Date: February 13, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA SOLUTIONS, INC.,
Petitioner,

v.

STELLAR, LLC,
Patent Owner.

IPR2024-01205
Patent 7,593,034 B2

Before BRIAN J. McNAMARA, ROBERT L. KINDER, and NABEEL U. KHAN, *Administrative Patent Judges.*

KHAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background and Summary

Motorola Solutions, Inc. ("Petitioner")[1] filed a Petition (Paper 1, "Pet.") requesting an *inter partes* review of claims 1–20 ("the challenged claims") of U.S. Patent No. 7,593,034 B2 ("the '034 patent," Ex. 1010). Stella, LLC ("Patent Owner")[2] timely filed a Preliminary Response (Paper 8, "Prelim. Resp.").

An *inter partes* review may not be instituted "unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a) (2018). Having considered the arguments and evidence presented by Petitioner and Patent Owner, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on at least one of the challenged claims of the '034 patent and we exercise our discretion to institute *inter partes* review as to all the challenged claims of the '034 patent on all the grounds of unpatentability set forth in the Petition.

B. Related Proceedings

The parties identify the following pending matter as involving the '034 patent: *Stellar, LLC v. Motorola Solutions, Inc. et al*., Case No. 4:23-cv-750 (E.D. Tex.). Pet. 84; Paper 4, 1.

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[1] Petitioner identifies Motorola Solutions, Inc. and WatchGuard Video, Inc. as the real parties-in-interest. Pet. 84.

[2] Patent Owner identifies Stellar, LLC as the real party-in-interest. Paper 4, 1.

C. The '034 Patent (Ex. 1010)

The '034 patent, titled "Loop Recording with Book Marking," relates to a surveillance apparatus processing images by "(1) continuously recording a stream of imaged data, (2) write protecting segments of the recorded stream, and (3) sending write protected segments from a local memory to a remote memory using a wireless transmitter." Ex. 1010, code (54), 2:7–11. As background, the '034 patent notes that "[o]ne of the major shortcomings of the existing camcorder technology is that the memory runs out too soon" and "when the memory is full, users have to return to their home/work computer or media station to transfer the recorded data from the camera to free up the memory." *Id.* at 1:27–28, 1:30–33. According to the '034 patent, there have been descriptions of cameras that can continuously save recorded images to a circular buffer, but notes that "there is still a need for a recording camera that provides better recording and editing functions." *Id.* at 1:35–2:2.

Figure 1 of the '034 patent, reproduced below, shows "a camera mounted on a pair of glasses connected to a circular buffer in a local memory that is controlled by a ring." Ex. 1010, 3:38–40.

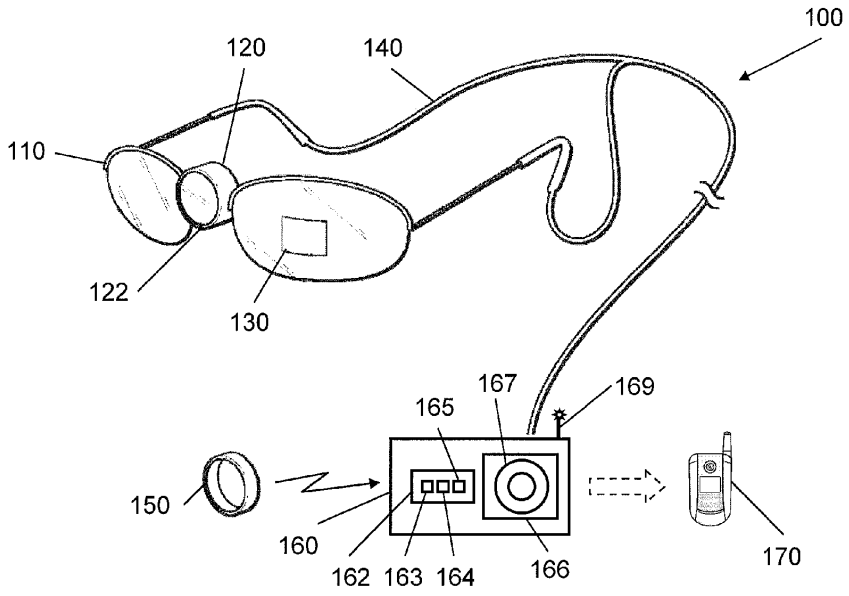

FIG. 1

Figure 1 depicts a surveillance apparatus 100 comprising eyeglasses 110 having a camera 120 mounted at the nose bridge, wherein the camera 120 is coupled to a belt-worn recorder 160 by a data and power cord 140. *Id*. at 3:50–54. The recorder 160 records audio/video data. *Id.* at 4:48–49. According to the '034 patent,

> a recording facility 163 could record the data stream from camera 120 to local memory 166, a protecting facility 164 could protect segments (not shown) of recorded data on memory 166, or a sending facility 165 could transmit protected segments (not shown) of recorded data to remote memory 170.

Id. at 5:22–28. The '034 patent describes that "image data received by recorder 160 is stored in a circular buffer 167 on memory 166." *Id.* at 5:50–51. The '034 patent also describes that signaling device 150 can be used to control the system "by turning the camera on and off, recording a portion of image data, stop the recording, zooming in and out of image data; or transmitting protected data into the remote memory 170." *Id.* at 6:50–54.

Figure 3 of the ’034 patent, reproduced below, shows the circular buffer of Figure 1. Ex. 1010, 3:43–44.

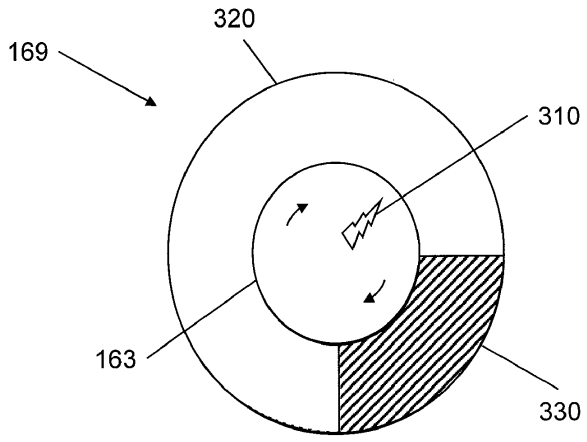

FIG. 3

Figure 3 depicts “circular buffer 167 in memory 166, with unprotected segment 320 and write-protected segment 330.” *Id.* at 7:21–23. As the recording facility 163 continuously records the data stream 310 into circular buffer 167, it records over unprotected segment 320, while skipping over protected segments 330. *Id.* at 7:24–29. According to the ’034 patent, “the portion of the circular buffer that is marked as write-protected data cannot be overwritten once the recorder loops back to the beginning of the media.” *Id.* at 7:29–31.

D. Illustrative Claims

Claims 1 and 12, the independent claims of the ’034 patent at issue in the proceeding, are reproduced below with limitation identifiers in brackets corresponding to claim analysis headings in the Petition. *See, e.g.*, Pet. 19–35.

1. [Preamble] A surveillance apparatus, comprising:

> [Element 1] a camera having an image capturing component that captures images, and a converting component that converts the images into at least one data stream;
>
> [Element 2] a local memory functionally coupled to the camera;
>
> [Element 3] a wireless transmitter functionally coupled to the local memory;
>
> [Element 4] a recording facility that continuously records the data stream into available portions of a circular buffer in the local memory as a first file using a digital video file format;
>
> [Element 5] a protecting facility that responds to a signal to record by designating a segment of the circular buffer as a write-protected portion and by indexing the write-protected portion as a second distinct file in the circular buffer, wherein the segment includes a pre-recorded subset recorded before the signal is received and a post-recorded subset to be recorded after the signal is received; and
>
> [Element 6] a sending facility that uses the transmitter to wirelessly transmit the second file to a remote memory.

Ex. 1010, 11:46–67; Ex. 1038.

> 12. [Preamble] A method of processing imaged data from a camera, comprising the following steps:
>
> [Element 1] receiving a stream of the imaged data;
>
> [Element 2] recording the stream into available portions of a circular buffer as a first file using a digital video file format;
>
> [Element 3] responding to a signal by write-protecting a segment that includes a newly recorded portion of the buffer, wherein the newly recorded portion is recorded before the signal is received, and includes a post-recorded portion to be recorded after the signal is received;
>
> [Element 4] indexing write protected portions of the buffer as separate, distinct files during the step of recording; and
>
> [Element 5] wirelessly transmitting at least one of the distinct files from the write-protected portions of the circular buffer to a remote memory.

Ex. 1010, 12:27–41; Ex. 1038.

E. Evidence

The Petition relies on the following references:

Reference	**Exhibit No.**
US 2002/0191952 A1; filed Apr. 9, 2002; published Dec. 19, 2002 ("Fiore").	1009
EP 1 064 783 B1; filed Mar. 25, 1999; published June 4, 2003 ("Mann").	1015
US 7,158,167 B1; filed Sept. 9, 1998; issued Jan. 2, 2007 ("Yerazunis").	1017
US 2004/0008255 A1; filed July 11, 2002; published Jan. 15, 2004 ("Lewellen").	1019
US 5,982,418; issued Nov. 9, 1999 ("Ely").	1020
US 6,804,638 B2; filed June 20, 2001; issued Oct. 12, 2004 ("Fiedler").	1037

Petitioner also relies on the Declaration of Nabil J. Sarhan, Ph.D. (Ex. 1003) in support of its arguments. The parties rely on other exhibits as discussed below.

F. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–20 would have been unpatentable on the following grounds:

Ground	Claim(s) Challenged	35 U.S.C. §[3]	Reference(s)/Basis
1a[4]	1–6, 9, 11–18	103(a)	Yerazunis, Fiore
1b	7, 8	103(a)	Yerazunis, Fiore, Lewellen
1c	10	103(a)	Yerazunis, Fiore, Mann
1d	19, 20	103(a)	Yerazunis, Fiore, Fiedler
2a	1–9, 11–18	103(a)	Ely, Fiore, Lewellen
2b	10	103(a)	Ely, Fiore, Lewellen, Mann
2c	19, 20	103(a)	Ely, Fiore, Lewellen, Fiedler

II. EXERCISE OF DISCRECTION

In the Preliminary Response, Patent Owner contends that we should exercise our discretion to deny the Petition in favor of the parallel litigation. Prelim. Resp. 5–18. The Board has held that the advanced state of a parallel district court action is a factor that may weigh in favor of denying a petition under § 314(a). *See NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential); Trial Practice Guide, 58 & n.2. We consider the following factors to assess "whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding":

[3] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103 and became effective March 16, 2013. Because the '034 patent was filed before this date, the pre-AIA versions of 35 U.S.C. §§ 102 and 103 apply. *See* Ex. 1010, code (22).

[4] Because Petitioner describes each ground as obvious over a primary reference "alone or as combined with" other references, each ground includes two possible combinations of references. However, for purposes of this Decision, we analyze each ground as if it were over all the listed references combined. *See, e.g.*, Pet. 7 ("**Ground 1a**: Claims 1–6, 9, and 11–18 would have been obvious under 35 U.S.C. § 103 over [Yerazunis] *alone or as combined with* [Fiore]." (emphasis added)); *see generally id*. at 7–8.

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"). In evaluating these factors, we "take[] a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Id.* at 6.

On June 21, 2022, the Director of the USPTO issued several clarifications concerning the application of the *Fintiv* Factors. *See Interim Procedure For Discretionary Denials In AIA Post-Grant Proceedings With Parallel District Court Litigation,* issued June 21, 2022 ("Guidance Memo)[5]. The Director's memo states that "the precedential impact of *Fintiv* is limited to the facts of that case." Guidance Memo 2. Under the Guidance Memo "the PTAB will not rely on the *Fintiv* factors to discretionarily deny institution in view of parallel district court litigation where a petition presents compelling evidence of unpatentability." Guidance Memo 2.

> [C]ompelling, meritorious challenges will be allowed to proceed at the PTAB even where district court litigation is proceeding in parallel. Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a

[5] Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

> conclusion that one or more claims are unpatentable by a preponderance of the evidence."

Guidance Memo 4.

The Guidance memo further states

> [c]onsistent with *Sotera Wireless, Inc*., the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.

Guidance Memo, 3. *See Sotera Wireless, Inc. v. Masimo Corp.,* IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to§ II.A).

The Guidance memo also states

> when considering the proximity of the district court's trial date to the date when the PTAB final written decision will be due, the PTAB will consider the median time from filing to disposition of the civil trial for the district in which the parallel litigation resides.

Guidance Memo 3[6]. With these factors and guidance in mind, we consider parties' contentions.

1. Factors 1, 2, and 5

Patent Owner notes that Petitioner and its real party-in-interest (WatchGuard Video, Inc., acquired by Petitioner in 2019) are the only defendants in the parallel litigation. Prelim. Resp. 16 (citing Ex. 2013). Patent Owner also notes that Petitioner has not sought a stay in the parallel litigation and argues that a stay is unlikely because the court has entered an order setting trial to begin shortly after a Decision to Institute would be entered in this proceeding. Prelim. Resp. 9–10; Ex. 2006, 1 (Order setting

[6] *See* https://www.uscourts.gov/statistics-reports/analysis-reports/federal-court-management-statistics.

trial date for March 10, 2025). Taken alone, factors 1, 2, and 5 favor exercising discretion to deny institution.

2. Factors 3, 4, and 6

Patent Owner emphasizes that, given the advanced state of the parallel litigation, the District Court and the parties have expended significant time and resources in preparing the parallel litigation for trial. Prelim. Resp. 12–15. Patent Owner advises that the District Court has appointed a technical advisor, considered extensive claim construction briefs, held a hearing and entered a *Markman* ruling on sixteen claim terms, and had yet to decide *Daubert* motions at the time Patent Owner filed its Preliminary Response. *Id.* at 13–14. Patent Owner points to its Infringement Contentions containing over 850 pages of claim charts alleging infringement of 14 claims over 8 asserted patents, as well as its investments in preparing opening and rebuttal expert reports and depositions to be conducted between the filing if its Preliminary Response and trial in the parallel litigation. *Id.* at 12–13. Patent Owner also cites the parties' investment of time and resources in assessing Petitioner's invalidity contentions based on over 115 prior art references including 16 for the patent and patent application references relied on in the Petition. *Id.* at 13.

Although we are sensitive to the expenditure of time and effort preparing for trial in the parallel litigation, we also recognize the limited time and resources available in conducting a trial in the parallel litigation. Patent Owner's infringement case alone, involving over 850 claim charts, could present a substantial, if not overwhelming, burden on the district court's resources. Trying invalidity issues adds to that burden.

Patent Owner acknowledges that "Petitioner's expert report on validity repeats all of the assertions in this Petition." Prelim. Resp. 13. Thus,

a significant portion of the resources consumed in preparing for trial would likely be useful in this proceeding. On November 11, 2024, Petitioner offered a stipulation, stating that, upon institution on this proceeding, Petitioner "will not pursue as to the challenged claims any ground raised or that reasonably could have been raised during the IPR" in the parallel litigation. *See* Ex. 1043 (filed in this proceeding Nov. 27, 2024). Petitioner's stipulation applies to the following proceedings, which includes this proceeding: IPR2024-01205, challenging claims 1-20 of U.S. Patent No. 7,593,034; IPR2024-01206, challenging claims 1-13 of U.S. Patent No. 9,485,471; IPR2024-01207, challenging claims 1-22 of U.S. Patent No. 8,692,882; and IPR2024-01208, challenging claims 1-23 of U.S. Patent No. 9,912,914.

3. Conclusion – Discretionary Denial

As all the claims of the '034 patent are challenged in this proceeding, Petitioner's stipulation applies to the entirety of the '340 patent. In view of Petitioner's stipulation, the substantial number of issues to be addressed in the District Court, Patent Owner's acknowledgement that Petitioner's expert report in the parallel litigation repeats the assertions in this Petition, and the potential reduction of issues to be tried in the parallel litigation, our weighing of the factors is against exercising discretion to deny institution. As discussed below, we also recognize that Petitioner's contentions have merit.

In consideration of the above, we decline to exercise discretion to deny institution. We now address the substantive issue presented in the Petition.

III. ANALYSIS

A. Principles of Law

Petitioner bears the burden of persuasion to prove unpatentability of the claims challenged in the Petition, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. 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) any objective evidence of obviousness or non-obviousness[7]. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (internal quotation marks and citation omitted).

Petitioner' declarant, Dr. Sarhan, opines that a person of ordinary skill in the art in the field "would have been a person having at least a Bachelor's

[7] Neither party has introduced any objective evidence of nonobviousness.

Degree in electrical engineering, computer science, or computer engineering, or undergraduate training in an equivalent field and at least two years of relevant experience in electronics technology." Pet. 7 (citing Ex. 1003 ¶¶ 24–25). Dr. Sarhan further opines that "[a]dditional graduate education could substitute for professional experience, and significant work experience could substitute for formal education." *Id*. (citing Ex. 1003 ¶¶ 24–25).

Patent Owner does not contest Petitioner's proposed level of ordinary skill. *See generally* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner's proposed level of ordinary skill, which is supported by Dr. Sarhan's testimony, except that we find that the phrase "at least" in Petitioner's proposed definition creates a vague, open-ended upper bound for the level of ordinary skill, and we therefore do not adopt that aspect of the proposal.

C. Claim Construction

We apply the same claim construction standard used in district court actions under 35 U.S.C. § 282(b), namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2020).

In applying that standard, claim terms generally are given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13. "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Only claim terms in controversy

require express construction, "and only to the extent necessary to resolve the controversy." *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *see also Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.").

a) "a local memory functionally coupled to the sensor"

Petitioner proposes that the term "a local memory functionally coupled to the sensor" be construed to mean "a memory that is distanced less than 20 cm from the camera and is coupled to the camera using entirely physical connectors." Pet. 9. Petitioner asserts that the parties have agreed to this construction in the district court litigation. *Id*. (citing Ex. 1021, 1). Patent Owner does not dispute this construction and its arguments do not depend on the construction of the term. We determine that an explicit construction of "a local memory functionally coupled to the sensor" is not necessary for purposes of this Decision.

b) "file"

Petitioner also argues that "the term 'file' should be given its plain and ordinary meaning as of June 2007, which was 'an identifiable collection of data.'" Pet. 9–10 (citing Ex. 1003 ¶¶ 122–128). Petitioner argues that in the '034 patent, the entire circular buffer is treated as a file and write-protected segments are also treated as files. *Id.*at 10 (citing Ex. 1001, 2:29–51, 5:66–6:7, 9:18–26). According to Petitioner, the '034 patent does not describe any particular file type of structure for these files. *Id*. Petitioner also argues that the prosecution history does not limit the claimed files to any particular type of file. *Id.* at 11 (citing Ex. 1011, 77; Ex. 1013, 285–286). Petitioner also relies on several dictionary definitions as supporting its

construction of the term file. *Id.* at 11–12 (citing Ex. 1025, 518; Ex. 1026, 467; Ex. 1027, 283).

Patent Owner asserts that "Petitioner's vague and unduly broad definition of 'file' is not only contradicted by the prosecution history, but also the extrinsic evidence it relies upon." Prelim. Resp. 4–5. Patent Owner states that it "reserves the right to present claim construction arguments if trial is instituted." *Id.* at 5. Patent Owner cites the prosecution history of the '034 patent to argue that the term "file" indicates "something that would '*facilitate [the] exchange of data*' and eliminate the need for further 'processing.'" *Id.* at 33–34 (quoting Ex. 1013, 285–286). Patent Owner also argues that the prosecution history shows that the recited files are stored within the circular buffer. *Id.* at 34. Finally, Patent Owner argues that Petitioner's proposed construction is "at odds with its own extrinsic evidence." *Id.* at 34–35 (citing Ex. 1025, 3; 1026, 3; 1027, 3).

Having reviewed the parties' arguments we determine, as explained further below in our analysis of claim 1 (§ III.D.4.c), that an express construction of the term "file" is not necessary at this stage of the proceeding.

A final determination as to claim construction will be made at the close of the proceeding, after any hearing, based on all the evidence of record. The parties are expected to assert all their claim construction arguments and evidence in the Petition, Patent Owner's Response, Petitioner's Reply, Patent Owner's Sur-reply, or otherwise during trial, as permitted by our rules.

D. Obviousness over the Combination of Yerazunis and Fiore (Ground 1a)

Petitioner argues claims 1–6, 9, and 11–18 of the '034 patent would have been obvious over Yerazunis in combination with Fiore. Pet. 12–44. Below we provide a brief overview of Yerazunis and Fiore and then analyze Petitioner's contentions in light of Patent Owner's arguments.

1. Yerazunis (Ex. 1017)

Yerazunis is titled "Video Recording Device for a Targetable Weapon," and relates to "a video recording device which is adapted to store video images corresponding generally to the area surrounding the sighting area of a targetable weapon such as a gun." Ex. 1017, code (54), 1:18–21.

Yerazunis discloses a video recording device that "records video frames successively in at least one circular buffer memory organized as a continuous loop overwriting the oldest frame within the respective buffer memory with a more recently received frame." Ex. 1017, 2:19–23. According to Yerazunis,

> [u]pon detection of a trigger event, the video recording device records a predetermined number of additional frames and then ceases to record further frame data. In this manner, a video event record is obtained which commences prior to the triggering event and extends in time after the triggering event.

Id. at 2:53–58.

Yerazunis also describes an embodiment in which such a video recording device is mounted to a targetable weapon, such as a gun, and aligned so as to record images surrounding the line of fire of the weapon. Ex. 1017, 3:9–12. Upon the removal of the gun from a holster, the video recording device starts recording of video frames to the circular buffer memory and, upon detection of the firing signal, stores additional frames for

a short period of time. *Id*. at 3:17–20, 3:25–28. According to Yerazunis, "[u]pon a firing event, specified frame data associated with that firing event both before and after the event is preserved and cannot be overwritten as a result of further use of the gun or subsequent firing events." *Id*. at 3:28–31.

Figures 9, 10a, and 10b of Yerazunis, reproduced below, depict a gun having a video recording device mounted below the barrel of the gun and its use. Ex. 1017, 4:7–14.

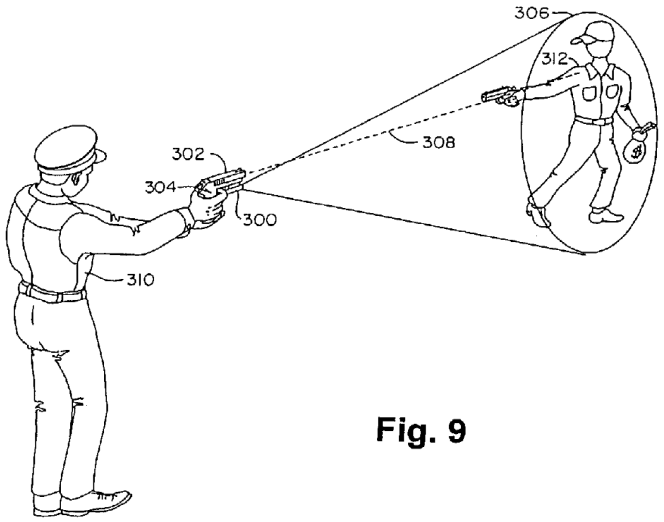

Fig. 9

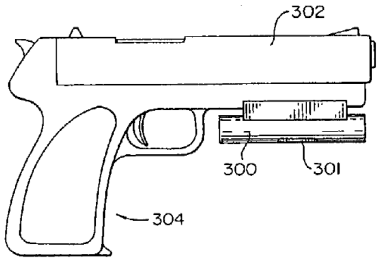

Fig. 10a

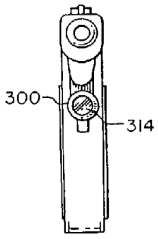

Fig. 10b

Figures 10a and 10b depict a video recording device 300 mounted below the barrel 302 of the gun 304. *Id*. at 15:24–25. Figure 9 shows that the video recording device 300 has "a field of view 306 generally surrounding the line of fire or target line 308 of the gun 304." *Id*. at 14:47–50. According to Yerazunis,

> the video recording device 300 includes a sensor, which is responsive to the discharge of the gun 304 to cause the video recording device 300 to continue to record for a brief interval following the discharge of the gun into a designated portion of a memory and to then preserve video frame information generated before and after the discharge of the weapon by the officer.

Id. at 14:55–61.

2. Fiore (Ex. 1009)

Fiore is titled "Data Recording and Playback System and Method," and relates to "data recording and playback systems for monitoring processes or occurrences of events which allows the replay and/or analysis of a time sampled signal." Ex. 1009, code (54), ¶ 3. Specifically, Fiore discloses a data recording and playback system having:

> a monitoring device that provides an input signal data, a memory device adapted to receive and temporarily store the input signal data from the monitoring device as data frames with time stamps, the memory device having addresses associated thereto, and a circular storage buffer having a memory mapped file with same address space as the memory device, the circular storage buffer being adapted to receive the temporarily stored input signal data from the memory device, and to store the input signal data in the memory mapped file.

Id. ¶ 20. Fiore describes that "the circular storage buffer stores recent data frames over aged data frames in the memory mapped file." *Id*. ¶ 21. According to Fiore, the memory mapped file is "adapted to allow playback of stored input signal data from the circular storage buffer without interrupting simultaneous recording of new input signal data into the circular storage buffer." *Id*. ¶ 23.

Figure 2 of Fiore, reproduced below, depicts a signal processor used in implementing the data recording and playback system. Ex. 1009 ¶ 27.

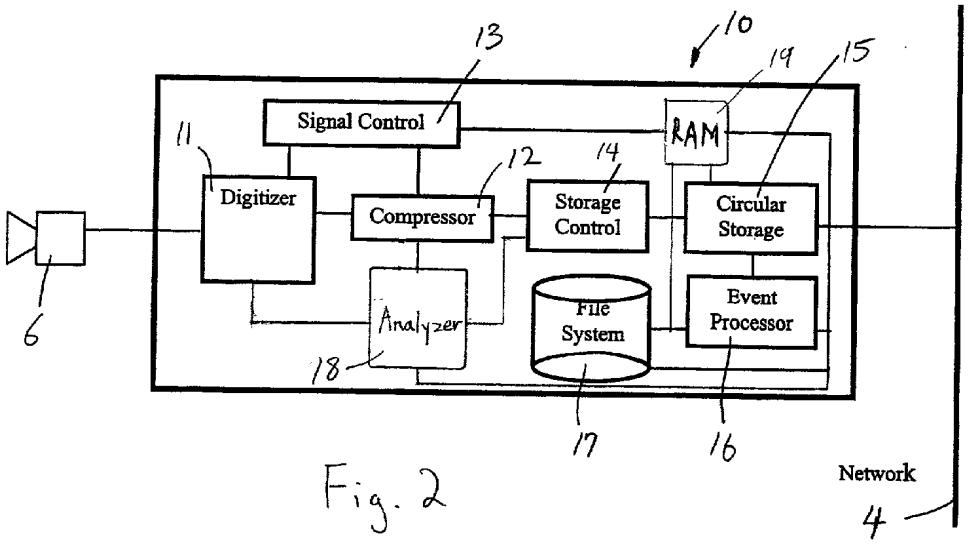

Fig. 2

Figure 2 shows the signal processor 10 having a storage control 14 that "receives the digitized and/or compressed input signal data from the monitoring device 6, and stores the input signal data and the analysis data in the circular storage buffer 15 together with a time stamp for each record." *Id.* ¶ 47. According to Fiore,

> the circular storage buffer 15 has two unique positions, the head and tail. The head represents the position in the circular storage buffer 15 having the most recent signal data, and the tail position represents the position in the buffer having the oldest signal data that is leaving the circular storage buffer 15, i.e. being overwritten by the most recent signal data.

Id. Fiore also describes that "the circular storage buffer may be implemented as a reserved area in memory, a disk file, or as a storage in a looped media." *Id.* ¶ 65.

3. Combination of Yerazunis and Fiore

Petitioner contends that a POSITA would have been motivated to combine Yerazunis and Fiore for multiple reasons, including that both references disclose data recording systems that store data in a circular buffer and preserve data associated with an event. Pet. 18–19. Petitioner also

contends that a POSITA would have been motivated to implement Yerazunis' video recording device with Fiore's file-based approach for the circular storage buffer because doing so would provide the benefits of having the access speed of Random Access Memory (RAM), making indexing of data transparent to the circular storage buffer's access objects, and avoiding issues with switching between RAM and disk storage. *Id*. (citing Ex. 1009 ¶¶ 22, 23, 51, 59, 60, 65, 67, 68, 72; Ex. 1003 ¶ 172).

Patent Owner disputes Petitioner's contention. Prelim. Resp. 35–39. Patent Owner argues that because Yerazunis stops recording video data after a predetermined number of frames following a trigger, it is incompatible with a fundamental purpose of Fiore, which is to avoid dropping any frames that would lead to loss of critical data. *Id.* at 36, 37–38 (citing Ex. 1017, 2:53–55; Ex. 1009 ¶¶ 12–13). Patent Owner argues that to preserve data, Fiore transfers that data to a different memory location instead of selectively write protecting that data within a circular buffer. *Id.* at 37 citing (Ex. 1009 ¶¶ 47, 48, 63). Thus, according to Patent Owner "a POSITA would not look to Fiore for guidance on a system to selectively write-protect on a circular buffer." *Id*. Patent Owner argues that Fiore does not disclose selectively write-protecting individual segments of time-stamped event data within a circular buffer nor does it disclose storing individual event files within a circular buffer. *Id*. at 38 (citing Ex. 1009 ¶¶ 10, 20, 22, 71).

At this stage of the proceeding, we are persuaded that Petitioner has established a reasonable likelihood that a person of ordinary skill would have combined the teachings of Yerazunis and Fiore for the reasons provided by Petitioner and summarized above. Several of Patent Owner's arguments do not directly address the specific combination proposed by Petitioner nor the specific motivation provided by Petitioner. For example,

as explained further below in our analysis of claim 1, the gun embodiment of Yerazunis does not stop recording video after a triggering event. *See* Ex. 1017, 17:50–59. Moreover, Fiore's file-based approach would provide the benefits highlighted by Petitioner regardless of whether Yerazunis stops recording video after a triggering event or continues recording to the next event. Similarly, the argument that Fiore does not selectively write protect data does not address Petitioner's combination, which relies on Yerazunis, not Fiore, for teaching selectively write protecting data. Patent Owner's argument also does not explain why a person of ordinary skill would not use Fiore's file-based approach in implementing Yerazunis' video recording device. Finally, Patent Owner's argument that Fiore does not store individual segments within the circular buffer does not address Petitioner's reliance on Yerazunis' gun implementation in which individual segments are stored in the circular buffer. *See* Pet. 32 (citing Ex. 1017, 3:25–38, 8:26–30, 15:9–13, 17:48–59).

4. Analysis of Claim 1

Petitioner contends that the combination of Yerazunis and Fiore teach each of the limitations of claim 1, supporting its contentions with evidence from the asserted prior art and from the testimony of Dr. Sarhan. Pet. 20–36. Patent Owner disputes certain aspects of Elements 4 and 5. Prelim. Resp. 26–39. We have reviewed Petitioner's contentions for the preamble[8] and undisputed limitations of claim 1 and are persuaded Petitioner has established a reasonable likelihood that the combination of Yerazunis and

[8] Because we determine that Petitioner has demonstrated a reasonable likelihood that the combination of Yerazunis and Fiore teaches the preamble, we need not make a determination, at this stage of the proceeding, whether the preamble is limiting.

Fiore teaches these undisputed limitations. We focus our attention on the disputed elements of claim 1 below.

a) Whether Yerazunis and Fiore Teach Continuous Recording

Element 4 of claim 1 recites, in pertinent part, "a recording facility that continuously records the data stream into available portions of a circular buffer." Ex. 1010, 11:53–56. Petitioner contends that Yerazunis' video recording device 'records video frames successively in at least one circular buffer memory organized as a continuous loop.'" Pet. 27–28 (citing Ex. 1017, 2:19–23, 17:9–20, 17:50–59). Patent Owner argues "Yerazunis fails to disclose 'a recording facility that ***continuously*** records the data stream . . . .'" Prelim. Resp. 29. Patent Owner argues that "Yerazunis discloses a system where recording ***ceases*** after a predetermined number of additional frames following a triggering event" and therefore fails to disclose a continuity of recording between events that would necessitate selective write protection of event-only data. *Id.* at 29–30 (citing Ex. 1017, 2:23–25, 2:53–55, 4:49–52, 7:62–64, 8:2–7, 8:30–32, 11:27–30, 12:14–17, 12:17–23, 13:5–11, 14:1–7, 14:12–18).

At this stage of the proceeding, we are persuaded that Petitioner has established a reasonable likelihood that Yerazunis teaches a recording facility that continuously records the data stream. Yerazunis' disclosure that the "video recording device records video frames successively in at least one circular buffer memory organized as a continuous loop overwriting the oldest frame within the respective buffer memory with a more recently received frame," sufficiently supports Petitioner's contention. Ex. 1017, 2:19–23.

Patent Owner argues that Yerazunis does not continuously record because it ceases to record after receipt of a triggering event but this

argument does not address Yerazunis' gun embodiment which differs from the car embodiment because it does not cease recording after the triggering event. *See* Ex. 1017, 17:50–59. Specifically, in the gun embodiment, "recording of data continues since a subsequent firing event may occur" and this "process continues as each trigger event occurs until the buffer memory is full." *Id.* at 17:49–61. For this reason, we determine Patent Owner's argument that Yerazunis ceases to record after a triggering event is not true for Yerazunis' gun embodiment.

b) Whether Yerazunis and Fiore Teach the "a First File Using a Digital Video File Format"

Elements 4 of claim 1 recites "first file using a digital video file format." Petitioner relies on Yerazunis' disclosure that its microprocessor "compresses the digitized frame data and stores the compressed frame data in the next sequential location of a circular buffer" (Ex. 1017, 2:45–47) and argues that, based on this disclosure, a "POSITA would have understood the compressed frame data as 'using a digital video file format.'" Pet. 28–29 (citing Ex. 1003 ¶ 183). Patent Owner argues that "Yerazunis fails to teach . . . ***a first file*** using ***a digital video file format***." Prelim. Resp. 31.

At this stage of the proceeding, we are persuaded by Petitioner's arguments of a reasonable likelihood that one of ordinary skill in the art would have understood Yerazunis' disclosure of compressing digitized frame data as teaching "using a digital video file format."[9] Petitioner's

[9] Although we do not rely on it for our Decision, we note that Fiore discloses that the video signal from a camera "may be compressed using the known video compression algorithms MJPG or MPEG, for example." Ex. 1009 ¶ 44. This disclosure also supports Petitioner's contention that one of ordinary skill would have understood that the disclosure of compressed frame data teaches using digital video file format.

argument is supported by Dr. Sarhan's testimony, which is unrebutted at this stage of the proceeding. *See* Ex. 1003 ¶ 183 ("A POSITA would have understood the compressed frame data as 'using a digital video file format.'").

c) Whether Yerazunis and Fiore Teach "indexing the write-protected portion as a second distinct file in the circular buffer"

Claim 1 recites "indexing the write-protected portion as a second distinct file in the circular buffer." Petitioner acknowledges that "Yerazunis does not *expressly* refer to recording the data stream into the circular buffer 'as a file'" but argues that Yerazunis does disclose, in the gun embodiment, using head and tail pointers to define areas of circular buffer memory and storing those pointers in a table to allow later retrieval of the video data. Pet. 30 (citing Ex. 1017, 17:50–56). According to Petitioner, a "POSITA would have found it obvious to record the data stream in the circular buffer 'as a file' based on Yerazunis' disclosure of storing video data corresponding to particular events 'in a table' for 'later retrieval.'" *Id*. (citing Ex. 1003 ¶ 186). Petitioner argues that file-based recordings were one of a finite number of ways of recording video data and that using files was a well-known approach for doing so. *Id.* at 30–31 (citing Ex. 1003 ¶ 186).

Petitioner also argues, in the alternative, that Fiore teaches using files to store video data. Pet. 31–32. According to Petitioner, "Fiore implements circular storage buffer 15 as a memory-mapped file and describes indexing collections of frame data for respective event as files within the memory-mapped file." Pet. 31 (citing Ex. 1009 ¶¶ 22–23, 51, 59, 60).

Patent Owner disputes Petitioner's construction of "file" and argues that Yerazunis does not disclose a file under a proper construction. *Id*. at

32–35. Patent Owner argues "Yerazunis makes no mention of any 'file' at all, let alone as part of the circular buffer or as an output format." *Id.* at 30. Patent Owner argues that Yerazunis' disclosure of a table does not teach the recited "file" and that, regardless, the table is not stored in the circular buffer.

At this stage of the proceeding, we are persuaded that Petitioner has established a reasonable likelihood that the combination of Yerazunis and Fiore teaches recording video data stream as a "file." First, we note that Petitioner relies, in the alternative, on Fiore for teaching the recited "file" and Patent Owner does not address Petitioner's arguments related to Fiore, other than briefly stating that Fiore does not disclose storing the files within the circular buffer. *See* Prelim. Resp. 34 ("Nowhere does Yerazunis (nor Fiore, for that matter) disclose storing a 'file' within the circular buffer itself, which Patent Owner specifically asserted to be 'non-obvious.'"). We agree with Petitioner's contentions regarding Fiore. For example, Fiore discloses "a circular storage buffer having a memory mapped file" and "stor[ing] the input signal data in the memory mapped file." Ex. 1009 ¶ 20. These statements, which explicitly disclose storing input data in a file, supports Petitioner's contention that the combination of Yerazunis and Fiore teaches both the "first file" and the "second distinct file" recited in claim 1. As to Patent Owner's argument that Yerazunis and Fiore do not store a file within the circular buffer, we disagree. Yerazunis discloses that it stores data within the circular buffer. Ex. 1017, 3:25–38, 8:26–30, 15:9–13, 17:48–59. Moreover, Fiore also discloses storing "input signal data in the memory mapped file" which is within the circular storage buffer. *See* Ex. 1009 ¶ 20. Based on these teachings, one of ordinary skill would

understand that the combination of Yerazunis and Fiore teaches storing files within the circular buffer.

Because Petitioner's contention that Fiore discloses a "file" are not challenged persuasively by Patent Owner at this stage, we need not determine an express construction of "file" to make our determination. However, for the sake of providing guidance to the parties, we note the following regarding the whether Yerazunis alone teaches the use of files to record a data stream. Although Patent Owner does not offer an express construction for the term "file" it does argue, however, based upon the prosecution history of the '034 patent, that the term "file" indicates "something that would '*facilitate [the] exchange of data*' and eliminate the need for further '*processing*.'" Prelim. Resp. 33–34 (citing Ex. 1013, 285–286). At this stage of the proceeding, we note that even if the term "file" were to be limited in the way Patent Owner proposes, Patent Owner does not explain why the video data stored in Yerazunis circular buffer would not be able to facilitate the exchange of data or eliminate the need for further processing. *See* Prelim. Resp. 33–35. Moreover, at this stage of the proceeding and based on the current record, we agree with Petitioner that a person of ordinary skill in the art would understand that files were a well-known way of storing information in memory, such as Yerazunis' circular buffer, at the time of the invention of the '034 patent. Ex. 1003 ¶ 186; *see also* Ex. 1017, 7:7–61 (describing the circular buffer as semiconductor memory), 18:7–12 (describing the circular buffer as DRAM storage). The parties should address these issues as trial proceeds, consistent with our rules.

d) Whether Yerazunis and Fiore Teach "designating a segment of the circular buffer as a write-protected portion"

Element 5 recites "a protecting facility that responds to a signal to record by designating a segment of the circular buffer as a write-protected portion." Petitioner relies on Yerazunis' disclosure of an event sensor generating a gun firing signal which "causes 'specified frame data associated with [the] firing event both before and after the event' to be 'preserved,' such that it 'cannot be overwritten as a result of further use of the gun or subsequent firing events.'" Pet. 32 (citing Ex. 1017, 3:25–8, 8:26–30, 15:9–13).

Patent Owner disputes that either of the car implementation and the gun implementation teach "designating a segment of the circular buffer as a write-protected portion." Prelim. Resp. 26–29. For both implementations, Patent Owner argues that "Yerazunis discloses a system whereby the entire buffer (i.e., all data) is preserved in response to a triggering signal by ceasing to record over previously ***used*** (i.e., recorded) portions of the buffer." Prelim. Resp. 26. The car implementation, according to Patent Owner, "is a simple 'buffer-record-and-stop' scheme, in which the video data is stored in a circular buffer until a triggering event, at which point the system records a small amount of additional video, and then stops the recording altogether." Prelim. Resp. 27 (citing Ex. 1017, 2:19–25). In this scheme, "the entire buffer (not just a segment of it) is saved." *Id*. at 28.

In the gun implementation, according to Patent Owner, the system uses only unused blocks of memory for each firing event by recording to one unused portion and then switching to record in a second unused portion. Prelim. Resp. 28 (citing Ex. 1017, 17:9–15, 56–58). Additionally, Patent Owner points out that Yerazunis' purge button erases the contents of the

circular buffer which further indicates that "the entire contents of the buffer are protected and unprotected as a whole." *Id.*

At this stage of the proceeding, we are persuaded by Petitioner's contentions of a reasonable likelihood that the combination of Yerazunis and Fiore teach "designating a segment of the circular buffer as a write-protected portion." Specifically, in the gun implementation, Yerazunis teaches that frame data associated with the firing event both before and after the event is preserved and cannot be overwritten and that data associated with a subsequent firing event is stored in an unused portion of the circular buffer. Ex. 1017, 3:25–38, 8:26–30, 15:9–13. Because data associated with each firing event is preserved, we agree that Yerazunis teaches designating a segment (i.e., the segment associated with a particular firing event as distinct from another firing event) of the circular buffer as write-protected.

To the extent Patent Owner argues that preserving data by using unused portions of the circular buffer for subsequent recording does not teach write-protecting that data, we disagree. Yerazunis is explicit that it preserves and prevents overwriting of recorded data (Ex. 1017, 17:48–59) which we determine sufficiently supports Petitioner's arguments at this stage of the proceeding.

5. Conclusion – Claim 1

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood that the combination of Yerazunis and Fiore teaches the limitations of claim 1 and that Petitioner will prevail in demonstrating that claim 1 is unpatentable as obvious over Yerazunis and Fiore.

6. Analysis of Independent Claim 12 and Dependent Claims 2–6, 9, 11, and 13–18

Petitioner notes that independent claim 12 is similar to independent claim 1 and relies on its contentions for claim 1. Pet. 19–36. Petitioner addresses each of the limitations of dependent claims 2–6, 9, 11, and 13–18 providing support from Yerazunis, alone or in combination with Fiore, and Dr. Sarhan's testimony. Pet. 36–44. Because Petitioner demonstrates a reasonable likelihood of success in proving that at least one claim of the '034 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See* 37 C.F.R. § 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every claim in the ground challenged by Petitioner, especially, as in this case, when Patent Owner does not separately argue those claims. Those challenges, in our view, are best left for trial after full development of the record.

E. Obviousness over the Combination of Ely, Fiore, and Lewellen (Ground 2a)

Petitioner argues claims 1–9 and 11–18 of the '034 patent would have been obvious over Ely, alone or in combination with Fiore, in further view of Lewellen. Pet. 56–80. Below we provide a brief overview of Ely and Lewellen and then analyze Petitioner's contentions in light of Patent Owner's arguments.

1. Ely (Ex. 1020)

Ely is titled "Distributed Video Data Storage in Video Surveillance System," and relates to a video surveillance system including a central control station and a plurality of video cameras each mounted inside a dome

housing unit. Ex. 1020, codes (54), (57). According to Ely, the video surveillance system also includes

> [a] video data buffer memory, storing compressed video data generated by the camera, [which] is mounted with each camera in the respective dome unit. Data buffered at the dome units may be selectively protected from over-writing in response to alarm signals and then retrieved for display or tape-recording by the central control station.

Id. at code (57).

Figure 3 of Ely, reproduced below, depicts a video camera unit used in a video surveillance system. Ex. 1020, 5:21–24.

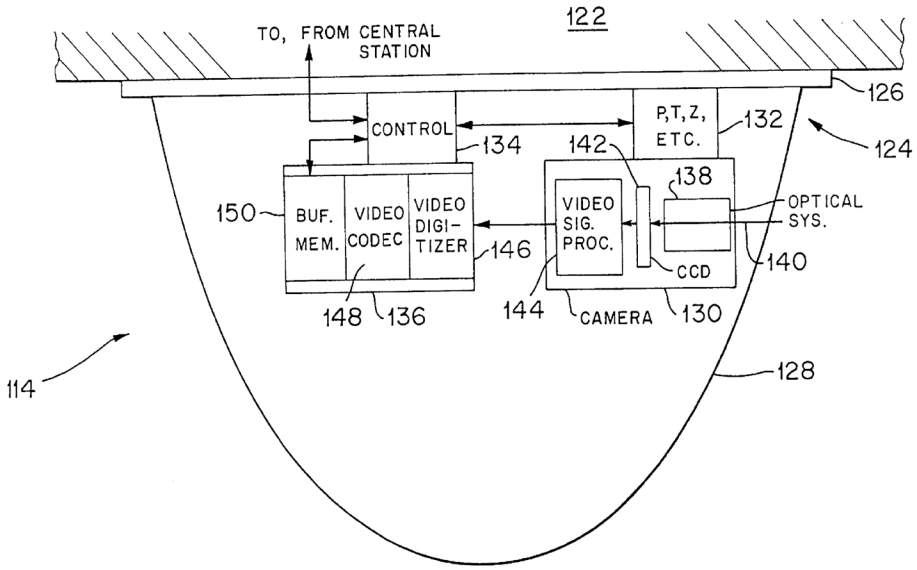

FIG. 3

Figure 3 shows a camera unit 114, which is mounted at a ceiling 122, and includes a housing 124 and a control circuit 134 programmed to carry out memory control, data storage and retrieval functions. *Id*. at 6:4–10, 6:43–46. The control circuit 134 transmits to the central station compressed video data representing video signals generated by camera 130. *Id*. at 7:17–21. In parallel, "the live compressed video data formed by the video codec 148 is also stored in the memory 150." *Id*. at 7:26–28. According to Ely,

> [p]referably the memory addressing and writing of data into the memory is controlled by the control circuit 134 so that the memory 150 serves as a ring buffer, in which currently generated compressed video data is written over the oldest compressed video data that had previously been stored in the memory 150. However, over-writing of the oldest data is subject to inhibition in response to alarm commands. On such occasions, the live compressed video data is written into a portion of the memory device 150 which does not hold video data that is to be preserved.

Id. at 7:28–38. When the control circuit 134 receives an alarm command,

> the control circuit 134 protects from over-writing compressed digital video data previously stored in the memory 150, and corresponding to a time interval beginning at a predetermined time prior to receipt of the alarm command, and continuing for a predetermined time after receipt of the alarm command."

Id. at 7:48–55.

2. Lewellen (Ex. 1019)

Lewellen is titled "Vehicle Video System and Method," and relates to "video systems for vehicles such as police cars." Ex. 1019, code (54), ¶ 2. Lewellen discloses a vehicle video system that records video information on a digital video recorder and includes a local wireless interface, such as a Bluetooth-compatible interface, so that "the digital video information collected by the vehicle video system is automatically transferred to the database when the vehicle is parked, removing the need for any human intervention for the logging and cataloging of video tapes." *Id*. ¶ 10; *see also id*. ¶ 31.

3. Combination of Ely, Fiore, and Lewellen

Petitioner argues that a person of ordinary skill in the art "would have been motivated to implement Ely's surveillance system with Fiore's file-based approach for the circular storage buffer and event data stored therein." Pet. 58. Petitioner argues that Fiore's file-based approach would provide the

same benefits in combination with Ely as it did in combination with Yerazunis under Ground 1a, which we have described above in § II.D.3. *Id.* ("As detailed in Sections IV.A.2–3, Fiore also describes numerous benefits of its file-based approach."). Petitioner argues that a person of ordinary skill would have combined Ely and Fiore with Lewellen "to implement Lewellen's local wireless interface for transmitting alarm data preserved with the file-based circular buffer approach of the Ely/Fiore system." Pet. 59. According to Petitioner, a person of ordinary skill would have been motivated "to use Lewellen's interface 390 to automatically transmit a file in the Ely/Fiore video recording device to a mobile phone, with the mobile phone then automatically forwarding the file to a remote memory." Pet. 60 (citing Ex. 1003 ¶ 264; Ex. 1019 ¶¶ 10, 31, 37, 41). Petitioner argues that Lewellen's local wireless interface is low power and very inexpensive and that the "benefit of providing the local wireless interface 390 is that digital information recorded by the digital video recorder 370 may be automatically transmitted and received to and from compatible devices." *Id*. at 60 (citing Ex. 1019 ¶¶ 42, 43).

Patent Owner argues that Ely's goal is to permanently store video signals on video tape while Fiore is directed to recording on a circular storage buffer. Prelim. Resp. 45. According to Patent Owner, Ely's goal of analog storage on video tape would be thwarted if the data were to be transmitted as a digital data file because a digital data file is not stored on video tape. *Id*. Additionally, Patent Owner argues Fiore does not teach selectively write-protecting segments of data within a circular buffer and therefore a person of ordinary skill would not look to Fiore as guidance on a system to selectively write-protect data segments on a circular buffer. *Id.* at 45–46.

At this stage of the proceeding, we are persuaded that Petitioner has established a reasonable likelihood that a person of ordinary skill would have combined the teachings of Ely, Fiore, and Lewellen for the reasons provided by Petitioner and summarized above. Patent Owner's argument that Ely's goal of analog storage would be thwarted by Fiore's teaching of storing files in the circular buffer as digital files is not consistent with Ely's disclosure. Ely discloses that video signals are stored in a ring buffer in digital form. *See* Ex. 1020, 2:55–64, 3:1–5; 6:48–53. Thus, the fact that Ely eventually stores those signals on video tape in analog form, does not contradict the motivation to combine Ely with Fiore. At this stage, we do not determine that Fiore's disclosure of storing digital files is inconsistent with Ely's goal.

Patent Owner's remaining arguments are similar to those it made with respect to the combination of Yerazunis and Fiore in Ground 1a. For the same reasons as before, these arguments are unavailing.

4. Analysis of Claim 1

Petitioner contends that the combination of Ely, Fiore, and Lewellen teaches each of the limitations of claim 1, supporting its contentions with evidence from the asserted prior art and from the testimony of Dr. Sarhan. Pet. 61–71. Patent Owner disputes certain aspects of Elements 4 and 5. Prelim. Resp. 39–47. We have reviewed Petitioner's contentions for the preamble[10] and undisputed limitations of claim 1 and are persuaded Petitioner has established a reasonable likelihood that the combination of

[10] Because we determine that Petitioner has demonstrated a reasonable likelihood that the combination of Ely, Fiore, and Lewellen teaches the preamble, we need not make a determination, at this stage of the proceeding, whether the preamble is limiting.

Ely, Fiore, and Lewellen teaches these undisputed limitations. We focus our attention on the disputed elements of claim 1 below.

a) Whether Ely, Fiore, and Lewellen Teach the "File" Limitations

Patent Owner argues that "as with Yerazunis, Ely fails to teach the claimed concept of recording the stream as ***a first file*** using ***a digital video file format***." Prelim. Resp. 42. We disagree for the same reasons explained above with respect to Ground 1a. We are persuaded by Petitioner's arguments of a reasonable likelihood that one of ordinary skill in the art would have understood Ely's disclosure of storing compressed video generated by its cameras as teaching "using a digital video file format."[11] Petitioner's argument is supported by Dr. Sarhan's testimony, which is unrebutted at this stage of the proceeding. *See* Ex. 1003 ¶ 273 ("A POSITA would have understood the compressed video data as 'using a digital video file format' and further understood Ely's 'ring buffer; to mean a 'circular buffer' of the type disclosed in the '034 patent.")

Patent Owner again disputes Petitioner's construction of "file" and argues that, under a proper construction, "[n]owhere does Ely (nor Fiore) disclose storing a 'file' within the circular buffer itself." Prelim. Resp. 44. As with Ground 1a, we disagree with Patent Owner's arguments. Petitioner relies, in the alternative, on Fiore for its teaching of storing video frame data in a circular storage buffer as a memory-mapped file. Pet. 67 (citing

[11] Although we do not rely on it for our Decision, we note that Ely expressly discloses that video cameras can output compressed digital video in the H.261 standard and that such compressed digital video could be stored in Ely's memory device 150. Ex. 1020, 7:2–11. This disclosure also supports Petitioner's contention that one of ordinary skill would have understood that the disclosure of compressed video teaches using digital video file format.

Ex. 1009 ¶¶ 22, 23, 51, 59, 60). Fiore expressly discloses "stor[ing] the input signal data in the memory mapped file." Ex. 1009 ¶ 20. Fiore supports Petitioner's contention that the combination of Ely, Fiore, and Lewellen teaches both the "first file" and the "second distinct file" recited in claim 1.

b) Whether Ely, Fiore, and Lewellen Teach "Designating a Segment of the Circular Buffer as a Write-Protected Portion"

Patent Owner argues that Ely does not teach "designating a segment of the circular buffer as a write-protected portion" and instead teaches "inhibiting" the overwriting of previously recorded data and that this protection mechanism applies to the entire circular buffer, not a select segment. Prelim. Resp. 40 (citing Ex. 1020, 2:65–3:16, 4:1–8, 7:30–36, 11:67–12:19, 14:24–38).

At this stage of the proceeding, we are persuaded of a reasonable likelihood that that Ely teaches "designating a segment of the circular buffer as a write-protected portion" as recited in claim 1. Ely discloses that when an alarm command is received the "control circuit 134 protects from over-writing compressed digital video data previously stored in the memory 150" and that this protected data "correspond[s] to a time interval beginning at a predetermined time prior to receipt of the alarm command, and continu[es] for a predetermined time after receipt of the alarm command." Ex. 1020, 7:50–55. This data "can be selectively retrieved in response to user instruction either for display (block 180) or directly for taperecording (block 182)." *Id.* at 10:17–23. By protecting a specific portion of the memory (pre- and post- alarm) and by allowing for selective retrieval of this protected data, Ely sufficiently supports, at this stage of the proceeding, Petitioner's

argument that it designates a segment of the circular buffer for write protection.

5. Conclusion – Claim 1

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood that the combination of Ely, Fiore, and Lewellen teaches the limitations of claim 1 and that Petitioner will prevail in demonstrating that claim 1 is unpatentable as obvious over the combination.

6. Analysis of Independent Claim 12 and Dependent Claims 2–9, 11, and 13–18

Petitioner notes that independent claim 12 is similar to independent claim 1 and relies on its contentions for claim 1. Pet. 61–71. Petitioner addresses each of the limitations of dependent claims 2–9, 11, and 13–18 providing support from Ely, alone or in combination with Fiore, in further view of Lewellen, and Dr. Sarhan's testimony. Pet. 72–80. Because Petitioner demonstrates a reasonable likelihood of success in proving that at least one claim of the '034 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See* 37 C.F.R. § 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every claim in the ground challenged by Petitioner, especially, as in this case, when Patent Owner does not separately argue those claims. Those challenges, in our view, are best left for trial after full development of the record.

F. Remaining Grounds 1b–1d, 2b, and 2c

Because Petitioner demonstrates a reasonable likelihood of success in showing that at least one claim of the '034 patent is unpatentable, we institute on all grounds and all claims raised in the Petition. *See* 37 C.F.R.

§ 42.108(a). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of every challenge raised by Petitioner, especially, as in this case, when Patent Owner does not separately argue these grounds. Those challenges, in our view, are best left for trial after full development of the record.

IV. CONCLUSION

Petitioner has demonstrated a reasonable likelihood of prevailing in showing the unpatentability of at least one challenged claim of the '034 patent and we institute on all grounds raised and all claims challenged in the Petition. At this stage of the proceeding, however, we have not made a final determination with respect to the patentability of the challenged claims.

V. ORDER

For the foregoing reasons, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–20 of the '034 patent is instituted with respect to all grounds of unpatentability set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '034 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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