

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., and
SAMSUNG ELECTRONICS, AMERICA, INC.,
Petitioners,

v.

FENDGO LLC,
Patent Owner.

Case IPR2024-00113
Patent 11,265,404

PATENT OWNER'S NOTICE OF APPEAL

Pursuant to 37 C.F.R. § 90.2(a) and 35 U.S.C. §§ 141(c) and 142, Patent Owner Fendgo LLC (“Fendgo”) hereby provides notice that it appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered May 5, 2025 (Paper 31) (the “Final Written Decision”), and from all underlying orders, decisions, rulings and opinions, including without limitation the Decision of Institution of *Inter Partes* Review (Paper 11). A copy of the Final Written Decision is attached as Exhibit 1.

Pursuant to 37 C.F.R. § 90.3, this Notice of Appeal is timely, having been filed within 63 days after the Final Written Decision (Paper 31), which is dated May 5, 2025.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Fendgo indicates that the issues on appeal include, but are not limited to, the following:

1. Whether the Patent Trial and Appeal Board erred in its determination that Petitioner showed by a preponderance of the evidence that claims 9 and 11 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of prior art references Zellner (U.S. Patent No. 6, 807,564) and Kim (International Publication Number WO 2004/056000);

2. Whether the Patent Trial and Appeal Board erred in its determination that Petitioner showed by a preponderance of the evidence that claims 9–10 and 12–14 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of

prior art references Martin (U.S. Patent No. 6,839,552) and Kim (International Publication Number WO 2004/056000);

3. Whether the Patent Trial and Appeal Board erred in its determination that Petitioner showed by a preponderance of the evidence that claim 15 is unpatentable under 35 U.S.C. § 103(a) as obvious over Walker (U.K. Patent Application GB 2 401 752);

4. Whether the Patent Trial and Appeal Board erred in its determination that Petitioner showed by a preponderance of the evidence that a person of ordinary skill in the art would combine the cited references;

5. Whether the Patent Trial and Appeal Board erred in its interpretation of the claim terms at issue, including (1) “owner identification information,” (2) “specified location,” and (3) “along with;”

6. Whether the Patent Trial and Appeal Board erred in by failing to adequately address the arguments made by Patent Owner;

7. Whether the Patent Trial and Appeal Board erred in by failing to adequately consider evidence presented by Patent Owner;

8. Whether the Patent Trial and Appeal Board erred in any findings or determinations supporting or related to the issues listed above, as well as all other issues decided adversely to Fendgo in any orders, decisions, rulings, and opinions.

Simultaneous with this submission, (1) a copy of this Notice of Appeal is being filed with the Patent Trial and Appeal Board, (2) pursuant to Federal Circuit Rule 15, a copy of this Notice of Appeal, along with the required docketing fees paid via pay.gov, are being filed electronically with the Clerk's Office for the United States Court of Appeals for the Federal Circuit by CM/ECF, (3) a copy of this Notice of Appeal is being served on Petitioner, and (4) a copy of this Notice of Appeal is being filed with the Director of the United States Patent Office, as set forth in the accompanying Certificate of Service.

Respectfully submitted this 2nd day of July, 2025.

Date: July 2, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e)(4), I hereby certify that, on July 2, 2025, a true and accurate copy of the foregoing PATENT OWNER'S NOTICE OF APPEAL was served upon counsel of record for the Petitioner via the delivery methods indicated as follows:

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Additionally, pursuant to 37 C.F.R. § 90.2(a), the undersigned hereby certifies that, on July 2, 2025, in addition to being filed electronically through the Patent Trial and Appeal Board's P-TACTS system, a true and accurate copy of the foregoing PATENT OWNER'S NOTICE OF APPEAL is being filed with the Director of the United States Patent and Trademark Office by electronic mail to efileSO@USPTO.gov, which is the email address as indicated on the United States Patent and Trademark Office's webpage for the Office of the General Counsel, <https://www.uspto.gov/about-us/organizational-offices/office-general-counsel>.

I also hereby certify that, on July 2, 2025, a true and correct copy of the foregoing PATENT OWNER'S NOTICE OF APPEAL, a copy of the Final Written Decision, and the prescribed filing fee were filed electronically through CM/ECF with the Clerk's Office of the United States Court of Appeals for the Federal Circuit.

Date: July 2, 2025

By: / James R. Nuttall, Reg. No. 44,978 /

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EXHIBIT 1

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

FENDGO, LLC,
Patent Owner.

IPR2024-00113
Patent 11,265,404 B2

Before JON M. JURGOVAN, SCOTT C. MOORE, and
AARON W. MOORE, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

DECISION
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. *Background and Summary*

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Petitioner”) filed a Petition requesting *inter partes* review of claims 9–15 of U.S. Patent No. 11,265,404 B2 (Ex. 1001, the “’404 patent”). Paper 2 (“Petition” or “Pet.”). Patent Owner, Fendgo, LLC, filed a Preliminary Response to the Petition on February 22, 2024. Paper 10 (“Prelim. Resp.”). We instituted *inter partes* review under 35 U.S.C. § 314(a). Paper 11 (“Institution Decision” or “Inst. Dec.”).

During the trial, Patent Owner filed a Response (Paper 15, “PO Resp.”), Petitioner filed a Reply (Paper 17, “Pet. Reply”), and Patent Owner filed a Sur-Reply (Paper 19, “PO Sur-Reply”).

Petitioner and Patent Owner (“the parties”) requested oral argument (Papers 20 and 21). A hearing was conducted on February 19, 2025, and a transcript is included in the record. Paper 30 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). Having reviewed the complete trial record, we determine that Petitioner has shown, by a preponderance of the evidence, that challenged claims 9–15 are unpatentable.

B. *Real Parties in Interest*

Petitioner identifies Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. as the real parties in interest. Pet. 71 (Petitioner’s Mandatory Notices).

Patent Owner identifies itself as the real party in interest. Paper 6, 2 (Patent Owner’s Mandatory Notices).

C. Related Matters

Petitioner and Patent Owner identify the following as matters related to this proceeding:

Samsung Electronics Co., Ltd. v. Fendgo, LLC, IPR2024-00114 (concerning claims 1–8 of the ’404 patent); and
Fendgo, LLC v. Samsung Electronics Co., Ltd. et al., 2:23-cv-00221-JRG (E.D. Tex.), filed May 19, 2023 (“the District Court litigation”).

Pet. 71; Paper 6, 2; Ex. 1032.

Petitioner contends that the ’404 patent is related to the following patents and applications:

US Provisional Application No. 60/643,865, filed January 14, 2005;
US Application No. 11/333,809, filed January 17, 2006, and issued as US Patent No. 8,472,915 on June 25, 2013;
US Application No. 13/897,353, filed May 17, 2013, and issued as US Patent No. 10,230,827 on March 12, 2019;
US Application No. 17/566,597 filed December 30, 2021 (pending);
and
US Application No. 13/897,359 filed May 18, 2013 (abandoned).

Pet. 71; Ex. 1032.

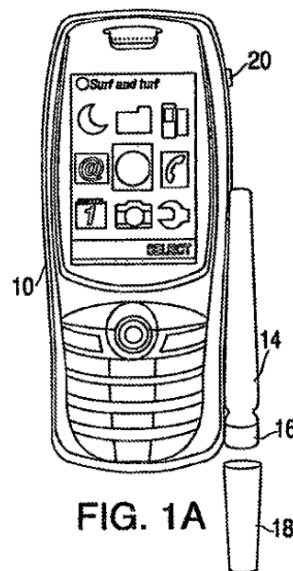
D. The ’404 Patent

The ’404 patent is titled “Emergency Personal Protection System Integrated with Mobile Devices.” Ex. 1001, code (54). The ’404 patent integrates a self-defense device with a mobile phone/device to protect against violent crime. *Id.* at 1:21–31. The ’404 patent asserts that integrating the self-defense device with the mobile phone/device means that “a person may be less likely to forget [the self-defense device] when traveling.” *Id.* at 2:36–38.

The '404 patent provides that the self-defense device may include a self-defense mechanism that, when activated, causes a camera built into the mobile phone/device to take a still or moving image of the attacker and send image data and audio data to the authorities along with specific information such as the name and description of the owner of the self-defense device, location information, a time and date stamp, etc. *Id.* at 3:4–16. A separate panic button located on the device may be used to activate these processes. *Id.* at 3:16–19.

To provide this functionality, the mobile device has a camera to obtain image and audio data; a location unit to obtain location data; a transmitting unit to transmit the image, audio, and location data; and a panic button to activate the camera, location unit, and transmitting unit. *Id.* at 3:51–58.

Figure 1A of the '404 patent is reproduced below.



As shown in Figure 1A, mobile device 10 includes an attached vial 14 containing pepper spray or mace. Ex. 1001, 7:63–67. “Nozzle 16 releases the pepper spray or mace once protective cap 18 is removed.” *Id.* at 8:1–2.

Figure 1A also shows panic button 20. *Id.* at 8:2–3. The panic button may be activated by a series of presses to automatically contact 911. *Id.* at 6:54–59. The series of presses of the panic button safeguards against falsely triggering the device. *Id.* at 7:51–57.

E. Challenged Claims

Claims 9, 13, and 15 are independent. Claims 10–12 depend directly from claim 9, and claim 14 depends from claim 13. Claim 9 is set forth below, with limitation identifiers indicated in brackets, and disputed language emphasized in bold and italics.

9. [pre] A mobile device, comprising:

[a] a camera unit, adapted to obtain at least one of image data and audio data;

[b] a location unit, adapted to obtain location data;

[c] a transmitting unit, adapted to transmit as ***emergency information*** the image data, the audio data, and the location data ***along with specific information*** including ***owner identification information***; and

[d] a panic button, adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a ***specified location*** when the panic button is activated,

[e] wherein the panic button is activated by a series of depressings of the panic button.

Ex. 1001, 9:11–24.

13. [pre] A mobile device, comprising:

[a] a camera unit, adapted to obtain at least one of image data and audio data;

[b] a location unit, adapted to obtain location data;

[c] a transmitting unit, adapted to transmit the image data, the audio data, and the location data as ***emergency information*** to a ***specified location, along with specific information*** including ***owner identification information***; and

[d] a panic button, which, when activated, performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location, and (2) dialing a public or private network for emergency purposes,

[e] wherein the panic button is activated by a series of depressings of the panic button.

Id. at 9:34–50.

15. [pre] An emergency safety device, comprising:

[a] a camera unit, adapted to obtain at least one of image data and audio data;

[b] a location unit, adapted to obtain location data;

[c] a transmitting unit, adapted to transmit the image data, the audio data, and the location data as ***emergency information*** to a ***specified location*** via text message, ***along with specific information*** including ***owner identification information***; and

[d] a panic button, adapted to activate the transmitting unit when activated,

[e] wherein the panic button is activated by a button sequence.

Id. at 10:4–16.

F. Evidence of Record

Petitioner relies upon the following prior art references¹:

Name	Reference	Date	Exhibit No.
Walker	GB 2 401 752 A	Published Nov. 17, 2004	Ex. 1007
Zellner	US 6,807,564 B1	Issued Oct. 19, 2004	Ex. 1008
Martin	US 6,839,552 B1	Issued Jan. 4, 2005	Ex. 1009
Kim	WO 2004/056000 A1	Published July 1, 2004	Ex. 1010
Dixit	US 6,449,472 B1	Published Sept. 10, 2002	Ex. 1011

Petitioner also supports its challenges with a declaration from Dr. William R. Michalson. Ex. 1002. Patent Owner relies on a declaration from Dr. George Edwards. Ex. 2001. Depositions of these declarants are also in the record. Ex. 1037 (Edwards); Ex. 2002 (Williams).

G. The Asserted Challenges to Patentability

Petitioner asserts the following challenges to patentability (Pet. 2):

¹ Petitioner alleges that all of the prior art references were filed, issued or published before the '404 patent's earliest alleged priority date of January 14, 2005. Pet. 2–3. Petitioner contends that all of these prior art references are prior art under 35 U.S.C. §§ 102(a), (b), and (e) (pre-Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”)). *Id.* at 3. Patent Owner does not refute these assertions. Because we determine in the Final Written Decision for IPR2024-00114 that preponderant evidence shows that claims 1–8 of the '404 patent do not have a priority date earlier than its filing date of January 30, 2019, which is after the effective date of March 13, 2014 for the AIA, we apply the AIA versions of §§ 102 and 103 herein. *See, e.g.*, AIA § 3(n), MPEP §§ 2152.01, 2159.02, 2159.03. Accordingly, we will treat these references as prior art under the AIA versions of §§ 102 and 103 in this Decision.

Ground	Challenged Claims	35 U.S.C. §	Reference(s)/Basis
1A	9, 10, 12–14	103	Walker, Kim
1B	14	103	Walker, Kim, Dixit
2	15	103	Walker
3A	9–14	103	Zellner, Kim
3B	14	103	Zellner, Kim, Dixit
4A	9, 10, 12–14	103	Martin, Kim
4B	14	103	Martin, Kim, Dixit

II. ANALYSIS AND DISCUSSION

In this section, we discuss Petitioner’s challenges to claims 9–15 of the ’404 patent and Patent Owner’s arguments for patentability. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 9–15 of the ’404 patent are unpatentable.

A. Legal Standards for Obviousness

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. *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 ordinary skill in the art; and

(4) where present, objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

The person of ordinary skill in the art is a hypothetical person who is presumed to know the relevant prior art. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey–Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). In determining the skill level, the Board may consider various factors including “the type of problems encountered in the prior 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.” *Id.* In a given case, every factor may not be present, and one or more factors may predominate. *Id.*

Petitioner contends as follows:

A person of ordinary skill in the art (“POSITA”) at the time of the ’404 patent’s priority date would have had at least a Bachelor’s of Science Degree (or equivalent) in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, and about 1-2 years of experience working with telematics systems (e.g. familiarity with wireless communications, geolocation systems, and human-computer interfaces). A greater amount of education in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, would compensate for fewer years of work experience, and more years of work experience would compensate for less education. This is the appropriate level of skill, whether the claims are entitled to priority as of January 2005 or January 2019.

Pet. 7–8 (citing Ex. 1002 ¶¶ 14–16).

Patent Owner does not address, let alone dispute, Petitioner's proposed level of skill in the art, which is consistent the problems, solutions, technology, and educational level set forth in the '404 patent and the prior art references asserted by Petitioner. *See generally* PO Resp.; *Okajima v. Bourdeau*, 261 F.3d 1350, 1354–55 (Fed. Cir. 2001) (the applied prior art may reflect an appropriate level of skill). Accordingly, we apply Petitioner's proposed level in this Decision.

C. Claim Construction

We construe the challenged claims under the same standard used by a federal court in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). This standard is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc) and its progeny, and includes “construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).

Only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

While neither Petitioner nor Patent Owner initially proposed any claim constructions, over the course of the trial, the parties disputed the meaning of certain claim language in their briefs and at the oral hearing.

Accordingly, following the hearing, we authorized the parties to submit supplemental claim construction briefs, which they did.

Papers 27–29. After consideration of those papers on the full record, we provide constructions for certain claim terms consistent with 37 C.F.R. § 42.100(b), as discussed below.

i. “owner identification information”

Claims 9, 13, and 15 recite “a transmitting unit, adapted to transmit . . . **owner identification information.**”

Petitioner contends that there is no basis to limit “owner identification information” to exclude, for example, a telephone number or database link associated with a device’s owner. Paper 28, 1. Patent Owner disputes Petitioner’s contention, arguing that “owner identification information” should be construed as “the name and/or description of the owner of the device” as described in the ’404 patent. Paper 29, 2 (citing Ex. 1001, code (57), 2:38–42, 5:29–33, 5:50–57, 6:20–23).

As support for its contention, Petitioner asserts that because dependent claim 8 of the ’404 patent recites that the transmitted information includes the owner’s name and description, the “owner identification information” in claim 1 must be construed more broadly to include a telephone number and database link, things that are not the device owner’s identity per se but may be linked to it. Paper 28, 2. Petitioner extends this reasoning to claims 9, 13, and 15, from which no similar claim depends.

Similar to Petitioner’s proposed construction, during examination of the ’404 patent, the examiner found that a remote unit’s identification linking to a user’s identity in a database amounted to “owner identification information” as claimed. *See, e.g.*, Ex. 1004, 149, 170, 244, 263 (citing U.S. Patent No. 7,515,900 (“Van Camp”), 11:16–25). We recognize, however, that the examiner’s determination was made under a different standard (broadest reasonable interpretation) than applies here, but we take this into consideration as some evidence of the proper construction of the claim language.

Reviewing the written description, we find no lexicographical definition or disavowal related to “owner identification information” in the ’404 patent. Instead, we find the term mentioned in relation to embodiments and examples. *See, e.g.*, Ex. 1001, code (57), 4:17–25. Claim 8 of the ’404 patent recites that “owner identification information includes a name and a description of the owner of the mobile device” but, as Petitioner notes, the doctrine of claim differentiation suggests the term as used in claim 1 should be construed more broadly. Paper 28, 2; *Littelfuse, Inc. v. Mersen USA EP Corp.*, 29 F.4th 1376, 1380 (Fed. Cir. 2022) (citing *Ortho-McNeil Pharm. v. Mylan Lab’ys, Inc.*, 520 F.3d 1358, 1362 (Fed. Cir. 2008) (“[T]his court strives to reach a claim construction that does not render claim language in dependent claims meaningless.”)).

Patent Owner is correct that “owner identification information” in claim 1 of the ’404 patent must be construed to encompass the name and description of the mobile device’s owner, as recited in claim 8. Paper 29, 2. However, we decline to restrict the term to exclude other indicia that may identify the device owner because that is not warranted by the written description, claims, and file history of the ’404 patent.

Consequently, we construe “owner identification information” to mean “information that identifies the owner of the mobile device” under its ordinary and customary meaning as set forth in the ’404 patent and its file history. As recited in claim 8 of the ’404 patent, the term includes, but is not limited to, the name and description of the mobile device owner.

As the intrinsic evidence is sufficiently clear what is meant by the term, we do not resort to extrinsic evidence. *See Phillips*, 415 F.3d at 1317 (explaining that extrinsic evidence is less significant than intrinsic evidence);

Seabed Geosolutions (US) Inc. v. Magseis FF LLC, 8 F.4th 1285, 1287 (Court of Appeals gives primacy to intrinsic evidence and resorts to extrinsic evidence only if consistent with intrinsic evidence); *Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1324 (Court of Appeals stating that its “decision rests solely on the intrinsic evidence”).

ii. “*specified location*”

Claims 9, 13, and 15 recite that the transmitting unit is adapted to transmit various information to a “*specified location*.”

Petitioner contends that “specified location” means that the information is not merely broadcast, but is instead transmitted to a location specified by, for example, a user or system designer. Paper 28, 2 (citing Pet. 22, 47, 62; Ex. 1002 ¶¶ 138–139, 259–260, 327).

Patent Owner contends that the term means “a location that is configurable in the device.” Paper 29, 3. Patent Owner asserts that the ’404 patent indicates that a user can configure where and how the device transmits emergency information, including email and MMS (Multimedia Message Service). *Id.* (citing Ex. 1001, 6:28–42, 7:30–33). Patent Owner argues that Petitioner reads the language as “specific location” and not “specified location” in which “specified” is a verb requiring an action involved in selecting the location. *Id.* (citing *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006)).

We agree with the parties that “specified location” requires someone or something to have specified the location. Paper 28, 2; Paper 29, 3. However, the term is not restricted to a location specified by a user or owner of the mobile device as opposed to some other entity. *See, e.g.*, Ex. 1001, 6:20–53. Nor does the term require a particular timing for when the location

must have been “specified” such as before (i.e., “pre-registration”), during, or after an emergency. *Id.* Nor does it require flexibility or adaptability such that the location must be specified dynamically or “on-the-fly” during an emergency. *Id.*

The ’404 patent describes “specified location” in a discussion concerning network communication protocols such as TCP/IP (Transmission Control Protocol/Internet Protocol), WAP (Wireless Access Protocol), MMS (Multimedia Message Service), e-mail, and telephone numbers (e.g., “911”). Ex. 1001, 6:20–56. Hence, a location is “specified” by designating the network destination to which information is routed using one of these communication protocols.

In the ’404 patent’s file history, the examiner determined that a reference describing an “emergency dispatch center” disclosed the claimed “specified location.” *See, e.g.*, Ex. 1004, 149 (citing U.S. Patent No. 8,472,915, 8:22–24). Although the examiner reviewed the term under a different standard (broadest reasonable interpretation), we agree that “specified location” may encompass an “emergency dispatch center” to which the collected information is transmitted via a communications network.

Hence, we determine that the ordinary and customary meaning of “specified location” as used in the ’404 patent means “a location that has been designated as a destination for information to be transmitted” such as by setting the telephone number, email address, or IP address to which information is to be sent without regard to who or what did so or when or how it was done.

iii. “along with”

Claims 9, 13, and 15 recite that the transmitting unit is adapted to “transmit . . . emergency information . . . **along with** specific information.”

Petitioner contends that “[t]he plain language of the claim does not include a ‘same time or together’ or a ‘same message’ requirement.” Paper 28, 4–5. Petitioner asserts that courts in unrelated cases have held that “along with” merely requires “a sense of togetherness, which could be satisfied by either temporal togetherness (e.g., doing a thing at the same time) some other type of togetherness (e.g., sending in the same data stream).” *Id.* at 5.

In addition, Petitioner asserts that that ’404 patent discloses using TCP/IP which transmits messages in packets, and importing a “same time” requirement would impermissibly exclude this embodiment. *Id.* Presumably, Petitioner means that TCP/IP breaks information into packets for transmission such that the packets are not transmitted at the same time together in the same message.

Patent Owner construes the claim language as “transmitting as emergency information the image data, the audio data, and the location data along with specific information including owner identification information *at the same time.*” Paper 29, 4 (citing Ex. 1001, claims 9, 13, 15). Patent Owner contends that the claims make clear that “when the panic button is activated (1) the emergency information is collected (i.e., the audio data, image data and location data); and (2) the emergency information is sent together as ‘emergency information.’” *Id.* According to Patent Owner, “[i]f location data were sent separately they would not meet the clear

language of the claims that states they are sent together at the same time as emergency data.” *Id.*

Patent Owner further argues that, in an ongoing emergency, it is necessary to transmit all emergency information, including image, audio, location, and identity data, to the emergency contact at the same time so that they have all information necessary to provide assistance to the device’s user. *Id.* (citing Ex. 1001, 5:50–57). Accordingly, Patent Owner contends the claim should be construed as transmitting the data at the same time.

In the file history for the ’404 patent, the examiner found that Van Camp disclosed the “along with” limitation. *See, e.g.*, Ex. 1004, 149, 170, 244, 261 (citing Van Camp, 11:16–25). Specifically, the examiner found that Van Camp’s disclosure of transmitting a remote unit’s identification, location, and other information to an emergency response center, satisfied the “along with” limitation. *Id.* Although the examiner’s determination was under a different standard (broadest reasonable interpretation) than we use here, we nonetheless take it into consideration for how the limitation should be understood.

Also, in the ’404 patent’s file history, the applicant distinguished Van Camp from the claimed invention by asserting that the claim language requires all four pieces of information (image data, audio data, location data, and owner identification data) to be transmitted by the transmitting unit when the panic button is activated. Ex. 1004, 110–111, 132–133.

Thus, Petitioner contends that “along with” means “any kind of togetherness” while Patent Owner seeks to restrict “along with” to require that the recited information is transmitted “at the same time as” or in the same message. Paper 28, 4–5; Paper 29, 4. We agree with Patent Owner to

the extent that activation of the panic button “triggers” all four pieces of information (“emergency information” including (1) image data, (2) audio data, and (3) location data, and “specific information” including (4) owner identification data) to be sent to the “specified location.” But we find no lexicographical definition or disavowal in the ’404 patent or its file history that would limit the “along with” limitation in claims 9, 13, and 15 to require that the information is sent “at the same time as” or in the same message. Hence, we do not agree with Patent Owner’s assertion that “along with” as used in claims 9, 13, and 15 is restricted to transmitting all data “together at the same time” or in the same message.

Accordingly, as used in the ’404 patent, we determine that “along with” means “together with” under its ordinary and customary meaning. We need not construe the term further to resolve the parties dispute over this claim language.

D. Grounds 1A–1B: Obviousness over Walker-Kim Combinations

We do not reach Grounds 1A–1B (Pet. 9–44) in this Decision because we decide that the challenged claims under these grounds would have been obvious under Grounds 3A and 4A (§§ II.F and II.H), as discussed below.

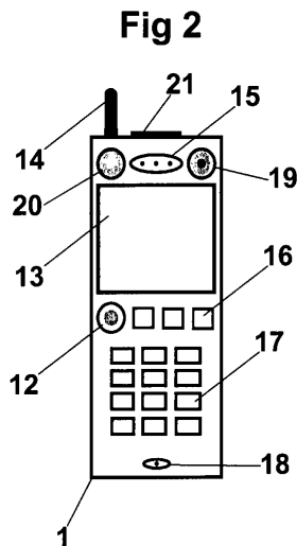
E. Ground 2: Obviousness over Walker

Petitioner contends that claim 15 would have been obvious over Walker. Pet. 31–36; PO Reply 2–10. Patent Owner disagrees. PO Resp. 9–12; PO Sur-Reply 2–4. For reasons that follow, we determine that Petitioner has demonstrated obviousness of claim 15. We use Petitioner’s identifiers to indicate the claim limitations under discussion (*see* § I.E, *supra*).

1. *Walker (Ex. 1007)*

Walker is titled “Mobile Personal Security Eyewitness Device.” Ex. 1007, code (54). Walker discloses a mobile communications handheld device to assist police and security services in obtaining evidence linking criminals to their crimes. *Id.* ¶¶ 1, 38.

Walker’s Figure 2 is reproduced below.



Walker’s Figure 2 shows handheld mobile communications device 1 incorporating eye witness button 12, LCD color screen 13, aerial 14, loud speaker or earpiece 15, navigation buttons 16, keypad buttons 17, microphone 18, digital camera with night vision sensitivity 19, and infrared illumination 20. *Id.* ¶¶ 63, 65.

Pressing eyewitness button 12 initiates a series of automatic actions, including transmitting streaming video and sound data, geographic location coordinates, timestamp, and other data, to data storage facility 7. *Id.* at ¶¶ 92, 99, 101, 105. The identities and behaviors of the recorded individuals are thus linked to particular locations at particular times, and to the physical presence of the user of handheld device 1. *Id.* ¶ 102. The data storage

facility stores and organizes the received data against handheld device or user identities or accounts. *Id.* ¶¶ 55, 97.

2. *Claim 15*

In this section, we consider Petitioner’s and Patent Owner’s contentions for claim 15. Pet. 31–36; PO Resp. 17–18; Pet. Reply 2–14; PO Sur-Reply 2–4. After considering the parties’ contentions on the full record, we determine that Petitioner shows by a preponderance of the evidence that claim 15 would have been obvious over Walker for reasons addressed in this section. We use Petitioner’s identifiers to indicate the limitations under discussion (*see* § I.E, *supra*).

a) *Preamble 15[pre]: Emergency Safety Device*

The preamble of claim 15 recites “An emergency safety device, comprising:”

Petitioner contends that “*Walker* discloses that its mobile device may be used by someone being attacked to transmit information for use by the police.” Pet. 31–32 (citing Ex. 1007 ¶¶ 38–49; Ex. 1002 ¶¶ 172–175).

Patent Owner does not dispute Petitioner’s contention that Walker discloses claim 15’s preamble.

We find that Petitioner shows by a preponderance of the evidence that Walker discloses claim 15’s preamble and thus do not decide whether the preamble is limiting.²

² *See Catalina Mrkt’g Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801 (Fed. Cir. 2002) (preamble may constitute a claim limitation under some circumstances).

b) Limitation 15[a]: Camera Unit

Limitation 15[a] recites “a camera unit, adapted to obtain at least one of image data and audio data.”

Petitioner contends that “*Walker* discloses that the mobile device includes a digital camera and captures video and sound.” Pet. 9–10 (citing Ex. 1007 ¶¶ 38, 43–44, 81–82, 91–92, 98–99; Ex. 1002 ¶¶ 59–65, 176), 32.

Patent Owner does not dispute Petitioner’s contention that Walker discloses limitation 15[a].

We find that Petitioner shows by a preponderance of the evidence that Walker discloses limitation 15[a].

c) Limitation 15[b]: Location Unit

Limitation 15[b] recites “a location unit, adapted to obtain location data.”

Petitioner contends that Walker discloses that its mobile device calculates location coordinates from data obtained by A-GPS (Assisted Global Positioning System) circuitry. Pet. 10–11 (citing Ex. 1007 ¶¶ 77–79, 81–82, 92, 96, 96, 101; Ex. 1002 ¶¶ 66–73), 32.

Patent Owner does not dispute Petitioner’s contention that Walker discloses limitation 15[b].

We find that Petitioner shows by a preponderance of the evidence that Walker discloses limitation 15[b].

d) Limitation 15[c]: Transmitting Unit

Limitation 15[c] recites “a transmitting unit, adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location via text message, along with specific information including owner identification information.”

Petitioner contends that Walker discloses that its mobile device has cellular, Internet, dial-up, email, and electronic messaging capabilities to transmit data from its camera unit and location unit. Pet. 11–12 (citing Ex. 1007 ¶¶ 54, 63, 65–74, 81–82, 103, 107, 109, 134, 140, 159; Ex. 1002 ¶¶ 74–103), 32–34. Petitioner further asserts that Walker discloses that its mobile device can communicate using “text messaging,” “picture messaging,” “video messaging,” and “email.” *Id.* at 32 (citing Ex. 1007 ¶¶ 81–82).

Petitioner further contends that Walker discloses that video, sound, and the device’s location coordinates are transmitted to a remote data storage facility. *Id.* at 12–13 (citing Ex. 1007 ¶¶ 92, 99, 101, 103; Ex. 1002 ¶¶ 85–88). According to Petitioner, this data can be transmitted to the data storage facility “by email or by email attachment or by an electronic messaging service.” *Id.* at 32–33 (citing Ex. 1007 ¶¶ 103–105, 134; Ex. 1002 ¶¶ 181–182).

Furthermore, Petitioner contends that Walker discloses that the data storage facility creates a file linked with the “device owner’s identity” to record data transmitted from the mobile device. *Id.* at 13 (citing Ex. 1007 ¶¶ 92, 97, 106; Ex. 1002 ¶¶ 89–90).

Petitioner contends that Walker discloses that the device transmits the owner’s identity to the data storage facility, but even if it did not, it would have been obvious to do so in light of Walker’s teachings. *Id.* at 13–14 (citing Ex. 1007 ¶¶ 1, 40–41, 43, 48–49, 92, 97, 106; Ex. 1002 ¶¶ 90–97).

Petitioner further argues that Walker’s device transmits data to a specified location, as opposed to merely broadcasting it, and thus discloses

limitation 15[c]. *Id.* at 22 (citing Ex. 1007 ¶¶ 84–85, 134, 138–139, claim 86).

i. “owner identification information”

Patent Owner argues that Walker does not disclose that its device transmits the device owner’s identity to the data storage facility. PO Resp. 9–10 (citing Ex. 1007 ¶ 97; Ex. 2001 ¶¶ 64–65, 69, 97; Ex. 2002, 50:5–25); PO Sur-Reply 2 (citing Pet. 13; Pet. Reply 3; Ex. 2001 ¶¶ 68–69). Specifically, Patent Owner asserts that Walker identifies the pieces of information sent to the data storage facility, and argues that “owner identification information” is not among them. PO Sur-Reply 3 (citing Ex. 1007 ¶ 57; Ex. 2001 ¶ 66; PO Resp. 10–11; Ex. 2001 ¶ 69; Ex. 2002, 50:5–25).

The parties agree, however, that there must be “something” (indicia such as an IP address, email address, telephone number, device identifier, etc.) in the information transmitted to the data storage facility that links the transmitted information to the owner’s identity at the data storage facility. Pet. Reply 3–5 (citing Pet. 13; Ex. 1007 ¶¶ 92, 97, 106; Ex. 1002 ¶¶ 89–90; Ex. 1037, 69:17–70:1; Ex. 2002, 49:15–50:25). Since, in Walker’s system, the transmitted indicia is linked to the device owner’s identity, this indicia is “information that identifies the owner of the mobile device.” It thus constitutes “owner identification information” as we have construed the term. *See* § II.C.i, *supra*.

Thus, Patent Owner’s argument that Walker’s device does not transmit the device owner’s identity to the data storage facility is unavailing.

ii. “specified location”

Patent Owner argues that Walker “requires that data be sent to the data storage facility and does not allow any flexibility to choose an alternate location.” PO Resp. 14–15 (citing Pet. 22; Ex. 1007, claim 86; Ex. 2001 ¶ 72). In contrast, according to Patent Owner, the ’404 patent discloses that the user can choose the specific location that information is sent to using different protocols. *Id.* at 14. Patent Owner further argues that “specified” is a verb that implies that the location was selected by a user. *Id.* at 17. *See also* Sur-Reply 4–5 (citing PO Resp. 13; Ex. 1001, 6:20–53; Ex. 2001 ¶¶ 62, 71).

Petitioner replies that Patent Owner is attempting to rewrite the claim to require a “user-specified location.” Pet. Reply 10–11 (citing PO Resp. 13–14; *Resonate Inc. v. Alteon Websystems, Inc.*, 338 F.3d 1360, 1364 (Fed. Cir. 2003) (stating that written description cannot be used to rewrite chosen claim language)).

We agree with Petitioner. Walker uses the same or similar protocols and networks as the ’404 patent describes to transmit information from the device to the data storage facility, including dial-up telephone, text, email, and internet protocols. *See, e.g.*, Pet. 22–23, 32 (citing Ex. 1001, 3:4–21, 6:38–42, 6:44–53, 7:41–44; Ex. 1007 ¶¶ 81–82, 84–85; Ex. 1002 ¶¶ 141–142). Walker’s device uses these protocols to set the data storage facility as the destination (i.e., “specified location”) to which to transmit information in a manner similar to the ’404 patent’s device uses the telephone number, email address, IP address, etc. to contact a 911 call center or other authority. Walker’s disclosure that this data can be transmitted to the data storage facility “by email or by email attachment or by an electronic messaging

service” encompasses the claimed “text message” used to send data to the data storage facility. *Id.* at 32–33 (citing Ex. 1007 ¶¶ 103–105, 134; Ex. 1002 ¶¶ 181–182).

Although Patent Owner argues that the device user must have “specified” the location, we find no such requirement in the claims or specification of the ’404 patent. Limitations not appearing in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). Furthermore, we find no lexicography or disavowal in the ’404 patent that requires that the device user specify the location to which the device transmits information.

Thus, we do not agree with Patent Owner’s argument that the ’404 patent requires a user to specify the location to which information is transmitted, and that Walker fails to disclose this feature.

iii. conclusion for limitation 15[c]

Accordingly, we find that Petitioner has shown by a preponderance of the evidence that Walker discloses limitation 15[c] notwithstanding Patent Owner’s arguments.

e) Limitation 15[d]: Panic Button

Limitation 15[d] recites “a panic button, adapted to activate the transmitting unit when activated.”

Petitioner contends that Walker discloses that a user presses an eyewitness button on a handheld device, which causes the device to capture and transmit video, sound, and location to a data storage facility. Pet. 4, 15–16 (citing Ex. 1007 ¶¶ 38, 92–105; Ex. 1002 ¶ 105), 31, 34–36.

Other than as already discussed, Patent Owner does not dispute Petitioner’s contentions for this limitation.

We agree with Petitioner that Walker’s “eyewitness button” is equivalent to the claimed “panic button” which is adapted to activate the device’s transmitting unit when activated.

f) Limitation 15[e]: Button Sequence

Limitation 15[e] recites “wherein the panic button is activated by a button sequence.”

Petitioner contends that Walker discloses that its eyewitness button initiates collection and transmission of information about an attack when pressed once. Pet. 34 (citing Ex. 1007 ¶¶ 92–109; Ex. 1002 ¶ 188). According to Petitioner, claim 15 does not require that the panic button be pressed, only that it is activated by a button sequence which could be entered on a separate device. *Id.* at 34–35 (citing Ex. 1007 ¶¶ 92–109; Ex. 1002 ¶ 190). Petitioner asserts that Walker discloses that the eyewitness button 12 can be activated by dialing a telephone number from a different device and entering a code known only to the user. *Id.* at 35 (citing Ex. 1007 ¶ 130; Ex. 1002 ¶ 192).

Patent Owner does not dispute Petitioner’s contentions for limitation 15[e].

We agree with Petitioner that Walker’s activating a device by entering a code into another device discloses the claimed activating the panic button by a button sequence. Pet. 34–35. Entry of the code would require pressing a button sequence even though those buttons are on a different device than the one with the panic button.

Accordingly, we find that Petitioner shows by a preponderance of the evidence that limitation 15[e] is disclosed by Walker.

g) Motivation to Modify with Reasonable Expectation of Success

Petitioner contends that, even if Walker does not disclose transmitting “owner identification information,” a POSITA would have found it obvious to modify Walker to do so. Pet. 13 (citing Ex. 1002 ¶¶ 91–97). Specifically, Petitioner asserts that Walker’s remote data storage facility creates a file linked with the device owner’s identity in order to record data from the mobile device; that Walker’s purpose is to identify individuals at the scene of a crime or emergency (the device owner being one); and that transmitting the owner’s identity to the data storage facility enables linking recorded information with the device owner’s identity, as Walker teaches. *Id.* at 13–14 (citing Ex. 1007 ¶¶ 1, 40–41, 43, 48–49, 92, 97, 106; Ex. 1002 ¶¶ 91–97).

Petitioner further contends that a POSITA would have had a reasonable expectation of success in modifying Walker because techniques for transmitting information to identify the owner were well-known. *Id.* at 14 (citing Ex. 1012 at code (57), 3:6–22, 11:1–7, 12:13–18, Figs. 3A–3B; Ex. 1002 ¶¶ 94–97).

Patent Owner argues that Walker does not mention transmission of the owner’s identity; that Walker retroactively investigates an incident and thus has no need to provide owner identification information in tandem with video, sound, and location; and that Walker teaches that an attacker may take the device away from the owner before they can identify themselves to emergency services so that attempting to provide the owner’s identity to emergency services would not have been useful. PO Resp. 10–12 (citing Ex. 1007 ¶¶ 31, 34, 38; Ex. 2001 ¶¶ 64–65, 68–70; Ex. 2002 at 50:5–25).

We have already determined that there is indicia (*e.g.*, telephone number, email address, IP address, device identifier, etc.) within the information transmitted from Walker’s device to its data storage facility that is associated with the device owner’s identity, and this indicia thus constitutes “owner identification information” as we have construed that term. *See* § II.E.2.d.i, *supra*.

Nonetheless, even if we had concluded that the transmitted information does not include such indicia, Petitioner has demonstrated that transmitting the owner’s identity along with video, audio, and location data would serve Walker’s objectives of linking the owner’s identity with the file containing the transmitted data at the data storage facility, as well as facilitating retroactive investigation by identifying the device owner as one of the individuals present at the scene of a crime or emergency. Pet. 13–15; Pet. Reply 5–10.

Consequently, we determine that Petitioner has shown by a preponderance of the evidence that Walker discloses that its device transmits the equivalent of the claimed “owner identification information” to the data storage facility. Even if Petitioner had not made this showing, for the reasons discussed, a POSITA would have considered it obvious to modify Walker to transmit “owner identification information” with a reasonable expectation of success.

3. *Conclusion for Claim 15*

For the reasons stated above, Petitioner has shown by a preponderance of the evidence that claim 15 would have been obvious over Walker.

A. Ground 3A: Zellner and Kim

We now address the disclosure of Zellner, Petitioner’s contention that claims 9 and 11 would have been obvious over the combination of Zellner and Kim, and Patent Owner’s arguments for patentability for this ground. Pet. 36–53; PO Resp. 18–21; Pet. Reply 14–16; PO Sur-Reply 4–6.

For the reasons that follow, we determine that claims 9 and 11 would have been obvious over the combination of Zellner and Kim. Throughout, we use Petitioner’s identifiers to indicate the limitations under discussion. We do not reach claims 10 and 12–14 under this ground because we determine that they would have been obvious under Ground 4A, *infra*.

1. Zellner (Ex. 1008)

Zellner is titled “Panic Button IP Device.” Ex. 1008, code (54). Zellner’s Figure 3 is shown below.

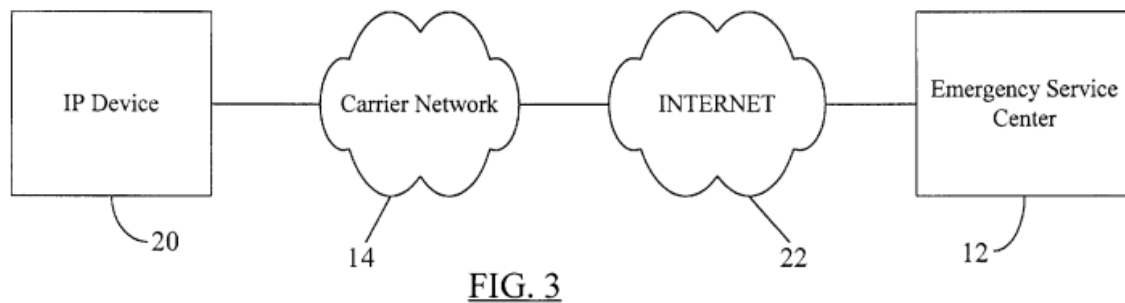
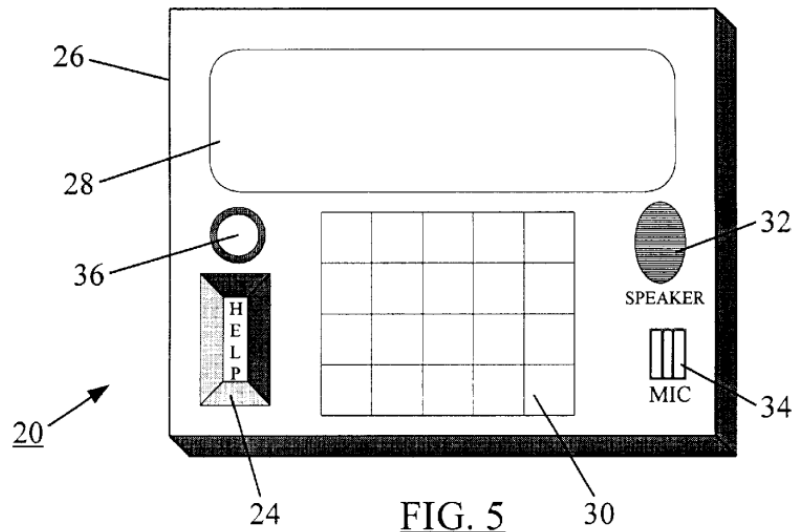


Figure 3 shows an IP device 20 connected to an emergency service center 12 via a carrier network and the Internet 22. *Id.* at 4:56–62, 5:15–33, 6:55–7:14.

Zellner's Figure 5 is reproduced below.



Zellner's Figure 5 shows an embodiment of the IP device 20 having a built-in camera 36. Ex. 1008, 7:65–67. Zellner discloses that panic button 24 may be provided on the housing of the IP device 20, and that pressing the panic button invokes emergency help functionality. *Id.* at 7:15–16, 7:46–50. Zellner discloses that the camera may be activated when the panic button 24 is pressed, and that video shot by the camera may be helpful in law enforcement in response to a burglary attempt or threat to the user's physical safety. *Id.* at 8:3–14. Zellner also discloses that the video images captured by the camera may be transmitted to the emergency service center (ESC) 12 upon activation of the panic button. *Id.* at 8:15–17. Zellner further discloses a user location identifier that "ascertain[s] a location of the user activating said panic button." *Id.* at claim 3, 3:34–39.

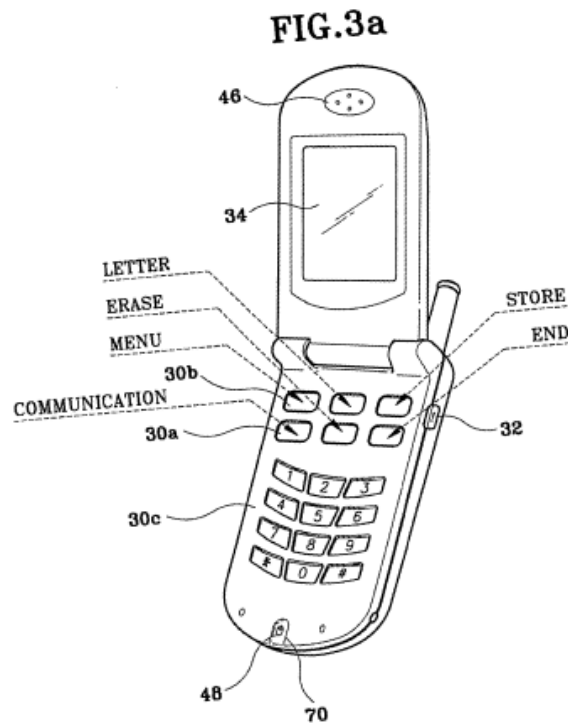
2. Kim (Ex. 1010)

Kim is titled "Apparatus for Processing Emergency Call Using Mobile Communication Network and Method Thereof." Ex. 1010, code (54). Kim discloses

When a user of a mobile phone handset 2 is being assailed by a robber, is confined in a bounded area against his or her will, is being chased, is being attacked in a house by a burglar, or is distressed in a mountainous area, the user may simply manipulate an emergency key button disposed on the handset which transmits emergency information intrinsically stored therein to an emergency contact such as a police station, fire station or dispatcher via a mobile communication network.

Id. at 5:16–22.

Kim's Figure 3a is reproduced below.



Kim's Figure 3a discloses a mobile phone with an emergency key button 32 to execute an emergency mode for notifying an emergency state by button manipulation. *Id.* at 8:22–25. The emergency mode may “be executed if the related emergency key button 32 is manipulated a plurality of times, e.g., three times, within a set period of time.” *Id.* at 13:3–6.

3. *Claim 9*

We now consider Petitioner’s and Patent Owner’s contentions for claim 9. Pet. 36–47; PO Resp. 18–21; Pet. Reply 14–16; PO Sur-Reply 4–6. After consideration of these contentions and evidence on the full record, we determine that Petitioner shows by a preponderance of the evidence that claim 9 would have been obvious the combination of Zellner and Kim for reasons that follow.

a) *Preamble 9[pre]: Mobile Device*

The preamble of claim 9 recites “A mobile device, comprising:”

Petitioner contends that Zellner’s “IP device 20” is described as a “portable or wearable unit” and may be a cellular telephone, hand-held computing device, or PalmPilot. Pet. 37 (citing Ex. 1008, 5:65–6:12, 6:55–58, 7:6–9, 11:38–44; Ex. 1002 ¶ 197–199).

Patent Owner does not dispute Petitioner’s contention that Zellner discloses claim 9’s preamble.

We find that Petitioner shows by a preponderance of the evidence that Zellner discloses claim 9’s preamble and thus do not decide whether the preamble is limiting.³

b) *Limitation 9[a]: Camera Unit*

Limitation 9[a] recites “a camera unit, adapted to obtain at least one of image data and audio data.”

³ See *Catalina Mrkt’g Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801 (Fed. Cir. 2002) (preamble may constitute a claim limitation under some circumstances).

Petitioner contends that Zellner’s portable device includes a “built-in digital camera” or “image capture device” to take “snapshots” or “motion pictures.” Pet. 37 (citing Ex. 1008, 3:21–23, 6:46–54, 7:65–8:14, 9:22–23; Ex. 1002 ¶¶ 200–205).

Patent Owner does not dispute Petitioner’s contentions for this limitation.

We find that Petitioner has shown by a preponderance of the evidence that Zellner discloses limitation 9[a].

c) Limitation 9[b]: Location Unit

Limitation 9[b] recites “a location unit, adapted to obtain location data.”

Petitioner contends that Zellner discloses a portable device with a “user location identifier 59” that includes “a GPS (Global Positioning System) receiver 60 and a GPS receiver antenna 62.” Pet. 38 (citing Ex. 1008, 13:17–23, 3:34–38, Fig. 6; Ex. 1002 ¶¶ 206–211). According to Petitioner, the antenna receives location signals and transfers them to the GPS receiver to identify the device’s current location, which the GPS receiver’s user location identifier provides to the portable device’s PCU (Processing and Control Unit) 52. *Id.* (citing Ex. 1008, 14:14–38; Ex. 1002 ¶¶ 209–210).

Patent Owner does not dispute Petitioner’s contention that Zellner discloses this limitation.

We find that Petitioner has shown by a preponderance of the evidence that Zellner discloses limitation 9[b].

d) Limitation 9[c]: Transmitting Unit

Limitation 9[c] recites “a transmitting unit, adapted to transmit as emergency information the image data, the audio data, and the location data along with specific information including owner identification information.”

Petitioner contends that Zellner discloses that its portable device includes a “wireless data communication module” to communicate with an emergency services center (“ESC”) over a network. Pet. 38–39 (citing Ex. 1008, 3:21–23, 6:33–54, 6:63–7:2, 8:15–17, 9:17–21, 9:39–44, 10:3–11, 14:39–15:9, 15:19–22, 17:27–44, 19:29–34, claims 1 and 11; Ex. 1002 ¶¶ 213–218).

Petitioner states that Zellner transmits image, audio, and location data to the ESC to request help during an emergency. *Id.* at 39 (citing Ex. 1008, code (57), 3:21–23, 3:34–39, 7:46–55, 8:15–17 (transmitting images), 9:3–44 (transmitting the user’s voice and audio recordings), 14:25–36, claim 3 (transmitting user location), 19:27–34; Ex. 1002 ¶¶ 219–222).

In addition, Petitioner states that Zellner discloses transmitting a user’s personal information, such as name and address, which can be recorded in text or audio. *Id.* at 40 (citing Ex. 1008, 3:14–21, 9:27–44, 10:8–30, 10:59–11:2, 11:7–19, 11:64–12:15; Ex. 1002 ¶¶ 223–224).

Petitioner further contends that Zellner discloses to transmit image, audio, location data, and personal information in response to the user pressing the panic button. *Id.* at 40–41 (citing Ex. 1008, 3:14–21, 3:21–23, 3:34–39, 7:46–55, 8:15–17, 9:3–44, 10:8–30, 10:59–11:2, 11:7–19, 11:64–12:15, 14:25–36, claim 3; Ex. 1002 ¶¶ 225–229).

Patent Owner does not dispute that Zellner discloses limitation 9[c].

We find that Petitioner has shown by a preponderance of the evidence that Zellner discloses limitation 9[c].

e) Limitation 9[d]: Panic Button

Limitation 9[d] recites “a panic button, adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated.”

Petitioner contends that Zellner discloses that its portable device includes a “panic button” and that the user “may need to push the panic button 24 only once” to activate it. Pet. 43 (citing Ex. 1008, Ex. 1008, 2:66–3:1, 3:24–33, 6:55–57, 7:28–30, 19:27–29, Fig. 4; Ex. 1002 ¶¶ 238–252).

Petitioner contends that Zellner’s portable device activates its camera and user location identifier to capture image, audio, and location data, along with personal information about the user, and transmit this information to the ESC in response to the user pressing the panic button. Pet. 46–47 (citing *id.* at §§ VIII.A.1.e(i), VIII.A.1.e(ii), VIII.D.1.d; Ex. 1008, 3:34–39, 8:3–6, 10:3–8, claim 3; Ex. 1002 ¶¶ 253–261).

i. “specified location”

Patent Owner argues that Petitioner fails to establish that Zellner and Kim disclose sending emergency information, including image data, audio data, location data, and specific information to a “*specified location*” when the panic button is activated, as required by limitation 9[d]. PO Resp. 18–21.

Specifically, Patent Owner asserts that “Zellner does not provide the user with the flexibility to specify the location to which this information is sent” but instead is limited to sending an emergency request to a “predefined, fixed recipient—specifically, a Support Service Provider (SSP) or Emergency Service Center (ESC).” *Id.* at 19–20 (citing Ex. 1008, 10:3–8; Ex. 2001 ¶¶ 77–78). Patent Owner argues that Zellner requires a pre-registration process to link an identification code or number assigned to the panic button so that an operator at the SSP can identify the user in a customer database and place a phone call to the ESC to provide information such as the name of the person in distress, the location where help is needed, and any known medical history. *Id.* at 20–21 (citing Ex. 1008, 1:64–2:5, 2:10–16; Ex. 2001 ¶¶ 79–80).

Thus, according to Patent Owner, “Zellner’s system is designed to rely on pre-stored user information, focusing on database management rather than the dynamic, on-the-fly transmission of information as required by the ’404 Patent.” *Id.* at 21. Patent Owner asserts that Zellner “does not allow the user to specify the location where emergency information is sent” and lacks the “flexibility and adaptability” required by the ’404 patent where the panic button sends information to a “user-specified location.” *Id.*

We agree with Petitioner that Patent Owner’s arguments are not supported by the claim language. Limitations that do not appear in the claims cannot be relied upon for patentability. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). As explained in § II.C, the term “specified location” as used in the ’404 patent is not restricted to a location specified by a user or owner of the mobile device as opposed to some other entity. *See, e.g.*, Ex. 1001, 6:20–53. Nor does the term require a particular timing for when

the location must have been “specified” such as before (i.e., “pre-registration”), during, or after an emergency. *Id.* Nor does it require flexibility or adaptability such that the location must be specified dynamically or “on-the-fly” during an emergency. *Id.*

Patent Owner argues that its construction of “specified location” is not an attempt to rewrite the claim language, but instead is giving meaning to the language as used in the ’404 patent. PO Sur-Reply 5. Patent Owner asserts that the verb “specified” is determined by a subject, which in the ’404 patent is the device’s user. *Id.*

However, reviewing the ’404 patent and its file history, we find no lexicographical definition for “specified location” requiring it to be specified by a user, nor do we find any disavowal of the term’s scope that would require the device’s user or owner to have specified the location. *See* § II.C.

Accordingly, Patent Owner’s arguments concerning the “specified location” feature of limitation 9[d] are unavailing.

ii. conclusion for limitation 9[d]

Patent Owner does not dispute that Zellner discloses or suggests the remaining parts of limitation 9[d] besides the “specified location” feature.

We determine that Petitioner has shown by a preponderance of the evidence that limitation 9[d] is disclosed or suggested by the combination of Zellner and Kim.

f) Limitation 9[e]: Series of Depressings of Panic Button

Limitation 9[e] recites “wherein the panic button is activated by a series of depressings of the panic button.”

Petitioner contends that Kim discloses a device similar to Zellner's and the '404 patent. Pet. 17, 44 (citing *id.* § VIII.A.1.e(i)). Petitioner states that Kim's device has an emergency key button 32 that may be "manipulated a plurality of times, e.g., three times, within a set period of time." *Id.* at 17 (citing Ex. 1010, 13:1–6).

Patent Owner does not dispute Petitioner's contention that Kim discloses or suggests this limitation of claim 9.

We find that Petitioner has shown by a preponderance of the evidence that Kim discloses limitation 9[e].

*g) Motivation to Combine with Reasonable
Expectation of Success*

Petitioner contends that, by the 2005 timeframe, a POSITA would have been aware of the need to implement techniques to reduce risk of false activation of panic button devices, and Zellner expressly recognizes this problem. Pet. 43–44 (citing Ex. 1008, 13:40–42; Ex. 1002 ¶¶ 242, 244). Petitioner asserts that Kim's technique of requiring the user to press its device's emergency key button a plurality of times was a known way to reduce false activations. *Id.* at 44 (citing Ex. 1002 ¶ 245).

Petitioner posits that a POSITA would have considered the combination of Zellner and Kim to amount to the use of a known technique to improve a similar device in the same way, as well as the application of a known technique to a known device ready for improvement to yield predictable results. *Id.* at 44–45 (citing Ex. 1002 ¶¶ 246–247). These are recognized rationales supporting a motivation to combine. *KSR*, 550 U.S. at 417.

We agree with Petitioner that a POSITA would have been motivated to modify Zellner's device to require multiple button presses as taught by Kim in order to reduce false activations.

Petitioner further contends that a POSITA would have had a reasonable expectation of success in modifying Zellner's panic button to require three presses for activation, and that examples of prior art showed how this could be done. Pet. 45 (citing Ex. 1002 ¶¶ 248–251). Since Kim expressly discloses implementation of this feature, we agree with Petitioner that a POSITA would have expected success in combining Zellner and Kim. Ex. 1008, 13:40–42.

Patent Owner does not dispute Petitioner's contentions that a POSITA would have been motivated to combine Zellner and Kim with a reasonable expectation of success.

Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that a POSITA would have been motivated to combine Zellner and Kim and would have reasonably expected success in making the combination.

h) Conclusion for Claim 9

For the stated reasons, we determine that Petitioner has shown by a preponderance of the evidence that the combination of Zellner and Kim discloses or suggests each limitation of claim 9, and that a POSITA would have been motivated to combine Zellner and Kim with a reasonable expectation of success.

4. Claim 11

Claim 11 depends from claim 9 and recites "wherein the specific information includes a pre-recorded emergency message."

Petitioner contends that Zellner discloses that the device user can pre-record a digital audio file including personal information such as “the user’s name, address, any known medical condition, contact information in case of emergency, etc.” Pet. 49–50 (citing Ex. 1008, 7:41–50, 9:22–44; Ex. 1002 ¶¶ 269–273).

Patent Owner does not dispute Petitioner’s contentions for claim 11.

We determine that Petitioner has shown by a preponderance of the evidence that claim 11 is obvious over the combination of Zellner and Kim.

5. *Claims 10 and 12–14*

As we determine that claims 10 and 12–14 would have been obvious under Ground 4A, we do not reach these claims under this ground.

B. Ground 3B: Zellner, Kim, and Dixit

This ground addresses claim 14. Pet. 53. We determine below that claim 14 would have been obvious under Grounds 4A and 4B, so we do not reach this ground.

C. Ground 4A: Martin and Kim

In this section, we address the disclosures of Martin and Kim. We also discuss Petitioner’s contention that claims 9, 10, and 12–14 would have been obvious over the combination of these references, and Patent Owner’s arguments for patentability. Pet. 54–67; PO Resp. 21–25. We use Petitioner’s identifiers to indicate the limitations of the claims under discussion (*see* § I.E, *supra*).

After consideration of the arguments and evidence, we determine that claims 9, 10, and 12–14 would have been obvious over the combination of Martin and Kim for reasons explained below.

1. *Martin (Ex. 1009)*

Martin is titled “System and Method for Reporting an Emergency Situation.” Ex. 1009, code (54). Martin’s Figure 2 is reproduced below.

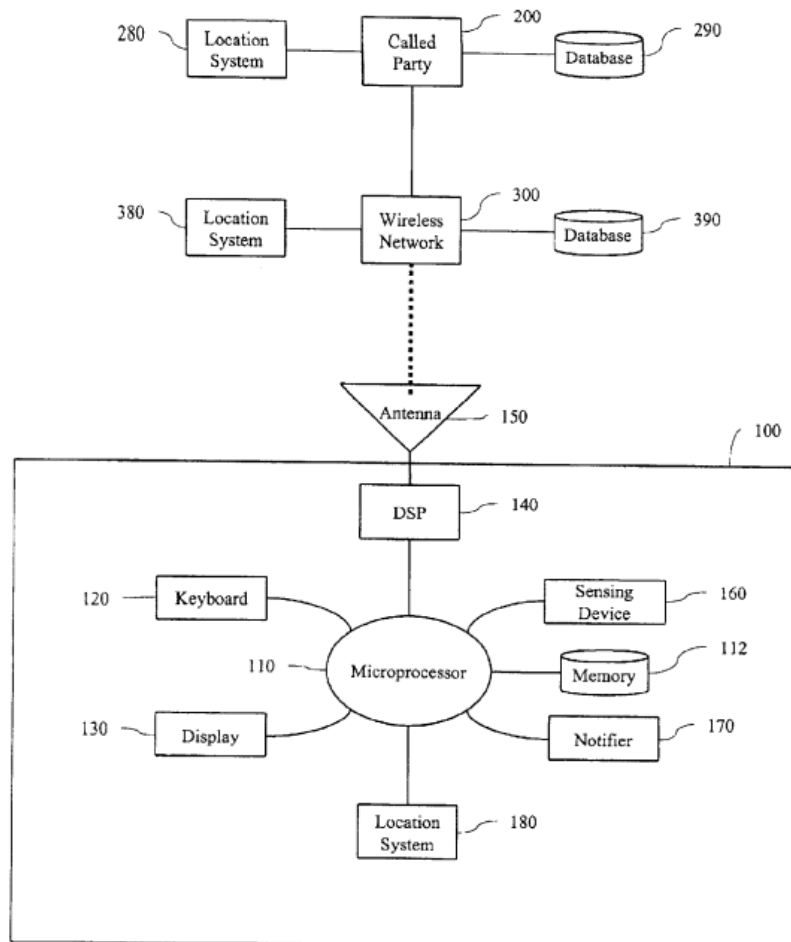


Figure 2

Martin’s Figure 2 above shows a wireless device 100 that connects to called party 200 via wireless network 300. Ex. 1009, 3:13–54, 3:48–54.

Wireless device 100 may be a wireless telephone. *Id.* at 3:29–31. Wireless device 100 may include a keyboard, display, camera, and microphone, and may capture content including sound and moving images.

Id. at 3:31–42. The wireless device 100 may include a location system 180 that includes a GPS receiver. *Id.* at 3:55–65.

Martin further discloses a method that includes receiving a keystroke sequence (e.g., pressing a key one or more times), establishing a wireless communication session, and transmitting location, captured content (e.g., images and sound), and a user profile to a called party. *Id.* at 4:34–45, claim 1, claim 4, Fig. 3. The user profile may include the name of the user of the wireless device 100. *Id.* at 4:36–42.

2. *Claim 9*

We proceed to consider the limitations of claim 9 in relation to the disclosures of Martin and Kim, and address the parties’ disputes concerning certain language in limitation 9[d]. After review of the evidence and arguments, we determine that Petitioner shows by a preponderance of the evidence that claim 9 would have been obvious over the combination of Martin and Kim.

a) *Preamble 9[pre]: Mobile Device*

The preamble of claim 9 recites “A mobile device, comprising:”

Petitioner contends that, to the extent the preamble is limiting, Martin discloses or suggests this feature. Pet. 54 (citing Ex. 1002 ¶¶ 286–288). Specifically, Petitioner asserts that Martin discloses a “wireless device” implemented as a “wireless telephone,” “handheld computer,” or “personal digital assistant.” *Id.* (citing Ex. 1009, 2:1–4).

Patent Owner does not dispute Petitioner’s contentions concerning the preamble.

We find that Petitioner has shown by a preponderance of the evidence that Martin discloses a “mobile device” as recited in claim 9’s preamble.

Because Petitioner has shown sufficiently that Martin discloses the preamble, we do not decide whether the preamble is limiting.⁴

b) Limitation 9[a]: Camera Unit

Limitation 9[a] recites “a camera unit, adapted to obtain at least one of image data and audio data.”

Petitioner asserts that Martin discloses that the wireless device includes a “sensing device” implemented as “one or more of a microphone [and] a camera” that “can capture content” including “sound, still or moving images.” *Id.* at 54–55 (citing Ex. 1009, 3:36–42, 4:64–66, 5:38–47, Fig. 3; Ex. 1002 ¶¶ 290–293).

Patent Owner does not dispute Petitioner’s contentions for this limitation.

We find that Petitioner has shown by a preponderance of the evidence that Martin discloses limitation 9[a].

c) Limitation 9[b]: Location Unit

Limitation 9[b] recites “a location unit, adapted to obtain location data.”

Petitioner contends that Martin discloses that its wireless device includes location system 180 implemented as a “Global Positioning System (GPS) receiver” that generates “location information” such as “position coordinates of wireless device 100.” *Id.* (citing Ex. 1009, 3:59–62, 5:4–14; Ex. 1002 ¶¶ 296–297).

Patent Owner does not dispute Petitioner’s contention that Martin discloses this limitation.

⁴ See note 5.

We find that Petitioner has shown by a preponderance of the evidence that Martin discloses limitation 9[b].

d) Limitation 9[c]: Transmitting Unit

Limitation 9[c] recites “a transmitting unit, adapted to transmit as emergency information the image data, the audio data, and the location data along with specific information including owner identification information.”

Petitioner contends that Martin discloses a wireless device 100 including a digital signal processor 140 and antenna 150. Pet. 55–56 (citing Ex. 1009, 3:48–54, 5:1–3, Fig. 3 (step 310), 4:46–5:1). Patent Owner does not dispute Petitioner’s contention. We agree that Martin’s digital signal processor and antenna disclose the claimed “transmitting unit.”

Petitioner further contends that Martin’s device captures content (such as sound and images) and location information relating to an emergency situation, and transmits this information to the called party. *Id.* at 56 (citing Ex. 1009, code (57), 3:39–42, 5:10–14, 5:46–47, 5:58–62, Fig. 3 (steps 314, 322); Ex. 1002 ¶¶ 301–302, 304). Patent Owner does not dispute Petitioner’s contention, and we agree that Martin discloses this feature.

Petitioner asserts that Martin discloses a “user profile” which includes “the name of the user of wireless device 100” and that this user profile is sent “to establish the wireless communication session” or during the communication session. *Id.* at 57 (citing Ex. 1009, 4:36–42, claim 43; Ex. 1002 ¶¶ 305–308).

Since the user of a wireless device is often its owner, we agree with Petitioner that a POSITA would have understood Martin to disclose that its wireless device transmits “specific information including owner

identification information” (the “user profile”) to the called party in an emergency situation. *Id.* (citing Ex. 1002 ¶¶ 305–306).

i. “along with”

Patent Owner argues that Martin does not disclose transmitting owner identification information “***along with***” emergency information as required by limitation 9[c]. PO Resp. 2.

As we explained in § II.C, the term “along with” in limitation 9[c] is sufficiently broad to encompass the transmitting unit being adapted to transmit emergency information “together with” specific information including owner identification information. Hence, Martin’s disclosure of transmitting location and captured content (e.g., images and sound) “along with” (i.e., “together with”) a user profile with the name of a user, to a called party during a wireless communication session discloses or suggests limitation 9[c]. Pet. 6, 55–58 (citing Ex. 1009, 3:12–16, 3:37–42, 3:48–54, 3:59–62, 4:34–45, 4:64–5:3, 5:10–14, 5:46–47, 5:58–62, Fig. 3 (steps 310, 314, 322), claims 1, 4, and 43; Ex. 1002 ¶¶ 298–308).

ii. conclusion for limitation 9[c]

We find that Petitioner has demonstrated by a preponderance of the evidence that Martin discloses or suggests limitation 9[c] notwithstanding Patent Owner’s arguments to the contrary.

e) Limitation 9[d]: Panic Button

Limitation 9[d] recites “a panic button, adapted to activate the camera unit, the location unit, and the transmitting unit, and send the emergency information and the specific information to a specified location when the panic button is activated.”

Petitioner contends that Martin’s “one special key” and Kim’s “emergency key button” are equivalent to the claimed “panic button.” Pet. 58 (citing Ex. 1009, code (57), 3:17–24, 7:18–20; 4:28–31, 6:30–34, 7:18–20, claims 6, 41; Ex. 1010, 13:1–6; Ex. 1002 ¶¶ 311–313).

Petitioner asserts that activation of Martin’s “special key” triggers the wireless device to establish a communication session and generate and transmit content (images and sound), location information, and a user profile to the called party in an emergency situation. Pet. 57, 61–63 (citing Ex. 1009, 4:36–42, 4:46–53, 4:64–5:3, 5:4–14, 5:39–47, claim 43, Fig. 3 (steps 306, 310, 312, 314, 320, 322)).

Petitioner states that Martin discloses that data from the mobile device is transmitted to a specified location as claimed, as opposed to being broadcast. *Id.* at 62 (citing Ex. 1009, 2:23–27, 4:22–25, 4:45–50, Fig. 5 (step 502); Ex. 1002 ¶ 327). Petitioner further asserts that “*Martin* discloses defining or creating a relationship between keystroke sequence and a called party (i.e., the called number), for example, ‘911.’” *Id.* (citing Ex. 1009, 2:23–27, 4:22–25, 4:45–50, Fig. 5 (step 502); Ex. 1002 ¶ 327). Petitioner states that this action amounts to specifying the location to which the various data would be transmitted. *Id.* (citing Ex. 1002 ¶ 330).

i. “specified location”

Patent Owner argues that Petitioner fails to show that the combination of Martin and Kim discloses or suggests the claimed “**specified location**” feature. PO Resp. 21–24; PO Sur-Reply 6–7.

Specifically, Patent Owner argues that Martin discloses several embodiments whose “common thread” is that they each describe that a user device transmits information to a “called party” that is a “fixed recipient”

with a corresponding database in which information is organized by “user profile” for long-term storage and retrieval. PO Resp. 22–23 (citing Ex. 1009, 4:33–45, 5:57–62, 6:8–9, 6:22–28, 7:2–3, Figs. 2, 4; Ex. 2001 ¶¶ 84–86). Patent Owner contends that Martin’s embodiments would not be understood to a user to configure the “specified location” and are not flexible systems that share “all the necessary emergency and owner identification information on-the-fly without any requirement for a ‘user profile’ or otherwise maintenance of a database for reference and retrieval at a later time.” *Id.* at 23–24 (citing Ex. 2001 ¶ 87); PO Sur-Reply 4–5 (citing Ex. 2001 ¶ 62).

As explained in § II.C.ii, the term “specified location” as used in the ’404 patent is not restricted to a location specified by a user or owner of the mobile device as opposed to some other entity. *See, e.g.*, Ex. 1001, 6:20–53. Nor does the term require any particular timing for when the location must have been “specified” such as before (i.e., “pre-registration”), during, or after an emergency. *Id.* Instead, “specified location” is “a location that has been designated as a destination for information to be transmitted.”

Petitioner has shown that Martin discloses the claimed “specified location” feature. *See, e.g.*, Pet. 61–63 (citing Ex. 1009, 2:23–27, 4:22–25, 4:45–50, 5:45–47, 6:29–34, 6:43–46, 7:18–25, Fig. 3 (step 322), Fig. 5 (step 502); Ex. 1002 ¶¶ 327–331). Particularly, we agree with Petitioner that Martin’s defining or creating the relationship between a keystroke sequence and the telephone number of a called party discloses the claimed “specified location” because the called party is the “location” that is “specified” by the established relationship. *Id.* In other words, the telephone number or other indicia of the called party is “a location that has been designated as a

destination for information to be transmitted” as we construed the term. *See* § II.C.ii, *supra*.

Although Patent Owner argues that the ’404 patent describes the “specified location” as configurable by a user as opposed to fixed, for reasons discussed in § II.C.ii, we agree with Petitioner that the claim language does not require the location to be specified by a user. PO Resp. 22–23; Pet. Reply 17–18. Particularly, we find no lexicographical definition or disavowal in the ’404 patent or its file history that would require such a construction. Nor does the claim language require flexibility or adaptability such that the location must be specified dynamically or “on-the-fly” during an emergency. *Id.* As these features are not recited in the claim, they cannot be relied upon for patentability. *See In re Self, supra*.

Even if the claim did require this feature, Martin discloses that the called party can be various “locations” including a Public Safety Answering Point (PSAP), an operations center, and other parties. Pet. 62 (citing Ex. 1009, 6:29–34, 6:43–46, 7:18–25). Hence, Martin suggests some degree of configurability or flexibility to specify different locations as the “specified location.” *See* Pet. 62 (citing Ex. 1009, 6:29–34, 6:43–46, 7:18–25; Ex. 1002 ¶ 328).

Patent Owner does not otherwise dispute Petitioner’s contentions for this limitation.

Accordingly, Petitioner has shown by a preponderance of the evidence that Martin discloses the “specified location” feature of limitation 9[d] notwithstanding Patent Owner’s arguments.

iii. “*send the emergency information and the specific information to a specified location when the panic button is activated*”

Patent Owner disputes Petitioner’s contention that Martin discloses the feature of limitation 9[d] recited above. PO Resp. 24–25. Specifically, Patent Owner argues that Petitioner does not show that Martin discloses collecting and transmitting image data, audio data, and location data “at the same time and together” when a panic button is pressed. *Id.* at 24. Rather, Patent Owner contends that Martin teaches that this is transmitted sequentially in different messages if they are sent at all. *Id.* at 24–25 (citing Ex. 1009, 4:64–6:2, 5:4–14; 5:39–47, Fig. 3 (steps 306, 312, 314, 320, 322)); PO Sur-Reply 6.

As explained in § II.C.iii, *supra*, we have determined that the ordinary and customary meaning of the part of limitation 9[d] reciting “send the emergency information and the specific information to a specified location when the panic button is activated” means that the activation of the panic button “triggers” the sending of the information. Petitioner has demonstrated that Martin discloses this feature. Pet. 61–62.

Specifically, Martin discloses that entering a keystroke sequence using a key of a keyboard “triggers” the wireless device to establish a wireless communication session and provide location information, content (such as images and sound), and a user profile (including name) to a called party in an emergency situation. *Id.* at 6, 61–62 (citing Ex. 1009, 3:12–16, 3:37–38, 3:59–62, 4:34–45, 4:46–53, 4:64–5:14, 5:39–47, claims 1 and 4, Fig. 3 (steps 306, 310, 312, 314, 320, 322); Ex. 1002 ¶¶ 305–308).

Although Patent Owner argues that Martin’s emergency information and specific information are sent sequentially and not “at the same time and

together” in the same message (PO Resp. 24–25), we agree with Petitioner’s declarant, Dr. Michalson, that, at the “computer speeds” at which a mobile device’s microprocessor operates, the sending of the emergency information and specific information would appear to occur contemporaneously to a human observer. Ex. 2002, 65:13–21. In any case, limitation 9[d] does not require that the emergency information and specific information must be transmitted “at the same time and together” in the same message, and it is sufficient that they are sent in the same communication session triggered by the special key (i.e., panic button), as Martin teaches. *See* II.C.ii, *supra*; Ex. 1009, 4:34–45, 5:4–14, 5:39–47, 6:16–65, 7:15–52, Figs. 3, 5, 7. Patent Owner’s argument is thus not supported by corresponding language in the claim. *See In re Self, supra*.

iv. Conclusion for Limitation 9[d]

Patent Owner does not otherwise dispute Petitioner’s contentions for limitation 9[d]. We agree with Petitioner that Martin discloses the remaining features of limitation 9[d].

Accordingly, we find that Petitioner has shown by a preponderance of the evidence that that the combination of Martin and Kim discloses or suggests limitation 9[d].

f) Limitation 9[e]: Series of Depressings of Panic Button

Limitation 9[e] recites “wherein the panic button is activated by a series of depressings of the panic button.”

Petitioner asserts that Martin discloses that pressing a key on the wireless device’s keyboard a number of times may activate the key. Pet. 58

(citing Ex. 1009, 4:28–31, 6:30–34, 7:18–20, claims 6, 41; Ex. 1002 ¶¶ 311–312). We agree with Petitioner that Martin discloses limitation 9[e].

Petitioner also asserts that Kim discloses a mobile phone with a dedicated “emergency key button 32” that enters an emergency mode if the “emergency key button 32 is manipulated a plurality of times (e.g., three times) within a set period of time.” *Id.* at 59 (citing Ex. 1010, 13:1–6). We agree with Petitioner that Kim also discloses limitation 9[e]. *Id.* at 59–61 (citing Ex. 1002 ¶¶ 314–321).

Patent Owner does not dispute Petitioner’s contentions for limitation 9[e].

We find that Petitioner has shown by a preponderance of the evidence that Martin and Kim each disclose limitation 9[e].

*g) Motivation to Combine with Reasonable
Expectation of Success*

Petitioner contends that, by the 2005 timeframe, a POSITA would have understood the risk of false activation of panic buttons like Martin’s “special key” and would have been aware of techniques such as Kim’s multiple button presses to prevent false activation in a device similar to Martin’s and the ’404 patent’s. Pet. 59–60 (citing Ex. 1009, 13:1–6; Ex. 1002 ¶¶ 314–316).

Petitioner contends that the Martin-Kim combination amounts to use of a known technique to improve similar devices in the same way, as well as applying a known technique to a known device ready for improvement to yield predictable results. Pet. 59–60 (citing Ex. 1002 ¶¶ 317–318); *see KSR*, 550 U.S. at 417.

Petitioner further argues that a POSITA would have had a reasonable expectation of success in modifying Martin’s special key to require three presses for activation and the result would have been predictable because Martin already discloses that its device initiates a communication session and transmits data in response to a key being pressed “one or more times.” Pet. 60 (citing *id.* § VIII.D.1.e(i); Ex. 1002 ¶ 319); Ex. 1009, 4:29–31, claims 6 and 41.

Patent Owner does not dispute Petitioner’s contentions concerning the reasons to combine Martin and Kim with reasonable expectation of success.

After review of the evidence and contentions, we determine that Petitioner has shown by a preponderance of the evidence that a POSITA would have been motivated to combine Martin and Kim and would have expected success in implementing the combination.

h) Conclusion for Claim 9

Petitioner has shown by a preponderance of the evidence that each limitation of claim 9 is disclosed or suggested by the combination of Martin and Kim, and that a POSITA would have been motivated to combine Martin and Kim with a reasonable expectation of success. Accordingly, Petitioner has demonstrated by a preponderance of the evidence that claim 9 would have been obvious over the combination of Martin and Kim.

3. Claim 10

Claim 10 depends from claim 9 and recites “wherein when the panic button is activated a public or private network for emergency purposes is dialed.”

Petitioner contends that Martin’s special key is activated by pressing it a plurality of times, which causes the wireless device’s microprocessor to

“dial 911” when the keystroke sequence is entered. Pet. 63 (citing Ex. 1009, 6:43–46; Ex. 1002 ¶ 333). Petitioner further contends that the called “party may be a PSAP, 911, undercover law enforcement operation center, and/or other parties.” *Id.* (citing Ex. 1009, 6:29–34, 6:43–46, 7:18–25; Ex. 1002 ¶ 334).

Petitioner contends that “[a] POSITA would have recognized these as public network emergency services entities because Martin discloses that a PSAP is a ‘Public Safety Answering Point’ and calls routed to it are governed by federal government Federal Communications Commission (FCC) telecommunications policies.” Pet. 63–64 (citing *id.* § VIII.A.2; Ex. 1009, 1:23–42; Ex. 1009 ¶¶ 335–336).

Accordingly, Petitioner contends that “the *Martin-Kim* combination discloses or suggests that when the special key is pressed a plurality of times (e.g., three times) (“wherein when the panic button is activated”), the microprocessor dials a called party, e.g., 911, a PSAP, or an undercover law enforcement center (“a public or private network for emergency purposes is dialed”). *Id.* (citing Ex. 1002 ¶ 337).

Patent Owner does not dispute Petitioner’s contentions specific to claim 10.

We determine that Petitioner has shown by a preponderance of the evidence that claim 10 is unpatentable as obvious over the combination of Martin and Kim.

4. *Claim 12*

Claim 12 recites “wherein a number of depressings of the panic button to activate the panic button is three.”

Petitioner contends that the Martin-Kim combination discloses or suggests this feature. Pet. 64 (citing *id.* § VIII.A.1.e(i); Ex. 1002 ¶ 338). Specifically, the cited section of the Petition states that Kim discloses that “emergency key button 32 is manipulated a plurality of times, e.g., three times, within a set period of time.” *Id.* (citing Ex. 1010, 13:1–6).

Patent Owner does not dispute Petitioner’s assertion for the specific limitation of claim 12.

We determine that Petitioner has shown by a preponderance of the evidence that claim 12 is unpatentable as obvious over the combination of Martin and Kim.

5. *Claim 13*

Claim 13 is an independent claim that is similar to claim 9 but further recites that the panic button, when activated, performs the function of “dialing a public or private network for emergency purposes.” Ex. 1001, 9:47–48. Claim 13 is thus essentially the combination of claims 9 and 10.

We discuss below Petitioner’s contention that claim 13 is obvious over the combination of Martin and Kim, and Patent Owner’s arguments for patentability. We determine that Petitioner has shown by a preponderance of the evidence that claim 13 would have been obvious over the combination of Martin and Kim.

- a) *Preamble 13[pre]: Emergency Safety Device; Limitation 13[a]: Camera Unit; Limitation 13[b]: Location Unit; Limitation 13[e]: Series of Depressings of Panic Button*

Petitioner contends that “*Martin* in combination with *Kim* discloses or suggests claim 13.” Pet. 64–66 (citing Ex. 1002 ¶¶ 339–344). Specifically, for the reasons stated for claim 9, Petitioner asserts that the “emergency

safety device” of preamble 13[pre], “camera unit” of limitation 13[a], “location unit” of limitation 13[b], and “panic button is activated by a series of depressings” of limitation 13[e] are all disclosed or suggested by the combination of Martin and Kim. Pet. 64 (citing *id.* §§ VII.F.1.a, VIII.F.1.b, VIII.F.1.c and VIII.F.1.e(i); Ex. 1002 ¶ 339).

Patent Owner does not dispute Petitioner’s contentions for these limitations of claim 13.

We agree with Petitioner’s contentions that preamble 13[pre] and limitations 13[a], 13[b] and 13[e] are disclosed or suggested by the combination of Martin and Kim. We thus do not address whether the preamble 13[pre] is limiting.⁵

b) Limitation 13[c]: Transmitting Unit

Limitation 13[c] recites “a transmitting unit, adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location, along with specific information including owner identification information.”

Petitioner avers that the “transmitting unit” of “[l]imitation 13[c] is the same as 9[c] except that it further requires that the transmitting unit is adapted to transmit data and information to a ‘specified location.’” Pet. 64–65 (citing Ex. 1002 ¶ 340). Petitioner contends that Martin discloses or suggests limitation 9[c] for the reasons explained under claim 9, and further asserts that “a POSITA would have understood Martin to disclose or suggest defining or creating the relationship between the keystroke sequence and the called number to comprise the user or system designer specifying the

⁵ See note 5.

location to which the various data would be transmitted.” Pet 65 (citing *id.* §§ VIII.F.1.d and VIII.F.1.e(ii)). Petitioner adds that “a POSITA would have also understood that Martin’s DSP and antenna (“transmitting unit”) transmit the data to a specified location.” *Id.* (citing Ex. 1002 ¶ 341).

Petitioner summarizes its contentions for limitation 13[c] as follows:

Accordingly, the *Martin-Kim* combination discloses or suggests a wireless device using a DSP, antenna, and wireless network telecommunications (“a transmitting unit”) to transmit various data relating to an emergency situation including image, sound, and location information to a called party (“adapted to transmit the image data, the audio data, and the location data as emergency information to a specified location”) in addition to a user profile (“along with specific information including owner identification information”).

Id. (citing Ex. 1002 ¶ 342).

Patent Owner disputes that Martin discloses the “along with” part of limitation 13[c] under its construction of the term. PO Resp. 24–25. For reasons explained for corresponding limitation 9[c], we do not agree with Patent Owner’s arguments. See § II.H.2.d, *supra*. Specifically, “along with” means “together with” and does not require that the emergency information and specific information must be transmitted “at the same time and together” in the same message, contrary to Patent Owner’s argument. PO Resp. 24. Instead, the emergency information and specific information may be transmitted together in the same communication session, as Martin teaches, given the breadth of the claim language. See § II.C.iii, *supra*.

In light of Petitioner’s contentions for limitation 9[c] and as set forth above in this section, we agree with Petitioner that the combination of Martin and Kim discloses or suggests limitation 13[c] notwithstanding Patent Owner’s arguments to the contrary.

c) Limitation 13[d]: Panic Button

Limitation 13[d] recites “a panic button, which, when activated, performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location, and (2) dialing a public or private network for emergency purposes.”

Petitioner contends that “[l]imitation 13[d] is the same as limitation 9[d] except that it also requires the dialing function described in claim 10.” Pet. 65. Petitioner asserts that the Martin-Kim combination discloses or suggests limitation 13[d] for the same reasons stated for limitation 9[d] and claim 10. Pet. 65 (citing *id.* §§ VIII.D.1.e and VIII.F.2; Ex. 1002 ¶ 343).

Specifically, Petitioner contends as follows:

Accordingly, the *Martin-Kim* combination discloses or suggests that when the special key is pressed a plurality of times (e.g., three times) (“when the panic button is activated”) it triggers various operations, including capturing images and sound, generating location information, and establishing a communication session and transmitting the data and a user profile to a specified number (“performs the following panic button functions: (1) activating the camera unit, the location unit, and the transmitting unit to send the emergency information and the specific information to the specified location”); and to cause the microprocessor to dial a called party, e.g., 911, a PSAP, or an undercover law enforcement center (“and (2) dialing a public or private network for emergency purposes”).

Pet. 66 (citing Ex. 1002 ¶ 344).

Patent Owner argues for patentability of limitation 13[d] together with limitation 9[d]. PO Resp. 21–25. Specifically, Patent Owner argues that the combination of Martin and Kim fails to disclose or suggest a device adapted

to transmit emergency information and specific information to a “specified location” “at the same time and together” in the same message. *See, e.g.*, PO Resp. 21–25; PO Sur-Reply 4–7.

For the reasons explained for limitation 9[d] and claim 10 in §§ II.C.ii–iii, II.H.2.e and II.H.3, *supra*, we do not agree with Patent Owner’s arguments because limitation 13[d] does not require a user or owner of the device to enter the “specified location” in a wireless device, nor does it require a particular level of configurability or flexibility in designating the location, or any particular timing of when the location is specified (i.e., pre-registration versus “on-the-fly” during an emergency). Nor does limitation 13[d] require for the emergency information and specific information to be transmitted “at the same time and together” in the same message, as Patent Owner asserts.

Patent Owner does not contest Petitioner’s assertion that the combination discloses the remainder of limitation 13[d].

We find that Petitioner has shown by a preponderance of the evidence that the combination of Martin and Kim discloses limitation 13[d] notwithstanding Patent Owner’s arguments.

d) Motivation to Combine with Reasonable Expectation of Success

Petitioner contends that a POSITA would have combined Martin and Kim with a reasonable expectation of success. Pet. 59–60. Patent Owner does not dispute Petitioner’s contentions.

For the reasons stated for claim 9 in § II.H.2.g, we determine that Petitioner has demonstrated that a POSITA would have combined Martin and Kim for the reasons that Petitioner states.

e) Conclusion for Claim 13

Petitioner has shown by a preponderance of the evidence that each limitation of claim 13 is taught or suggested by the combination of Martin and Kim, and that a POSITA would have been motivated to combine these references with a reasonable expectation of success. Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claim 13 would have been obvious over the combination of Martin and Kim.

6. Claim 14

Claim 14 recites “wherein a number of depressings of the panic button to activate the panic button is five.”

Petitioner contends that the Martin-Kim combination discloses or suggests claim 14. Pet. 66–67 (citing Ex. 1002 ¶¶ 345–348). Specifically, Petitioner contends that “the *Martin-Kim* combination discloses or suggests a mobile device with a special key (“panic button”) that, when pressed a plurality of times (e.g., three times), triggers the collection and transmission of emergency information (“wherein the panic button is activated by a series of depressings of the panic button”).” Pet. 66 (citing *id.* § VIII.F.1.e(i)). Petitioner argues that the *Martin-Kim* combination discloses or suggests that the special key is pressed a plurality of times to activate the special key, and thus presumptively discloses or suggests “wherein a number of depressings of the panic button to activate the panic button is five.” Pet. 66 (citing *id.* § VIII.A.5; Ex. 1002 ¶¶ 346–348).

We agree with Petitioner that a POSITA considering Kim would have understood that pressing a key a “plurality of times” is a range that does not have an upper bound, and overlaps and encompasses the claimed five presses. *Id.* at 27–28. Petitioner also argues that the ’404 patent does not

disclose that there is something special or critical about five button presses.
Id. at 28.

Patent Owner does not dispute Petitioner's contentions specific to claim 14.

We determine that Petitioner has shown by a preponderance of the evidence that claim 14 would have been obvious over the Walker-Kim combination.

A. Ground 4B: Martin, Kim, and Dixit

We now address Petitioner's contention that claim 14 would have been obvious over the combination of Martin, Kim, and Dixit, and Patent Owner's argument for patentability for this ground. Pet. 67 (citing *id.* §§ VIII.B, VIII.F.5); PO Resp. 25.

1. Dixit (Ex. 1011)

Dixit is titled "System and Method for Remote Convenience Function Control with At-Vehicle and Remote Assistance-Summoning Functions." Ex. 1011, code (54). Dixit's Figure 1 is reproduced below.

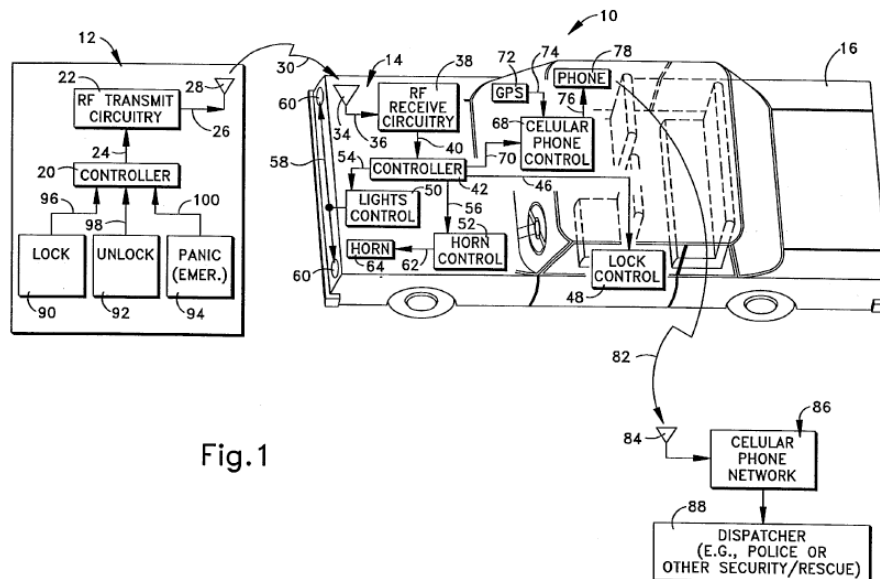


Fig.1

Figure 1 shows remote convenience system 10 which includes a portable hand-held transmitter 12, and a vehicle-based receiver/controller 14 located at vehicle 16. Ex. 1011, 2:54–60. The transmitter has a panic pushbutton switch 94 which, when actuated, causes a remote-assistance summoning function to convey an assistance-request message via a cellular phone network 86 to a dispatcher 88, e.g., the police or other security or rescue. *Id.* at 4:20–28, Fig. 1. Transmitter 12 outputs a broadcast signal 30 conveying a PANIC message when the emergency pushbutton switch 94 is actuated five times within five seconds. *Id.* at 4:47–53, Figs. 1, 3.

2. *Claim 14*

Claim 14 recites “wherein a number of depressings of the panic button to activate the panic button is five.”

Petitioner contends that Dixit discloses a portable transmitter that, when “actuated five times,” causes the vehicle to transmit a remote assistance-summoning request to the police, for example. Pet. 29–30 (citing Ex. 1011, 4:47–5:49, Figs. 1, 3; Ex. 1002 ¶ 166).

Patent Owner relies on its arguments for ground 4A and does not present any further argument for this ground specific to claim 14. PO Resp. 25. For the reasons explained, Patent Owner’s arguments do not undermine Petitioner’s showing for either Ground 4A or this ground.

Consequently, Petitioner has shown by a preponderance of the evidence that claim 14 would have been obvious over the combination of Martin, Kim, and Dixit.

3. *Motivation to Combine Walker, Kim, and Dixit*

Petitioner contends that Dixit is similar to the ’404 patent and Kim. Pet. 29 (citing Ex. 1002 ¶ 165). Petitioner argues that a plurality of button

presses was a well-known technique for minimizing the risk of accidental activation. Pet. 30 (citing *id.* at § VIII.A.1.e.(i); Ex. 1002 ¶ 167). Petitioner asserts that “[t]he ’404 patent does not disclose any special or critical results in terms of risk reduction from using five button presses compared to any other number of button presses more than one.” *Id.* Petitioner argues that “a POSITA would have understood that requiring five button presses would predictably lead to fewer accidental activations compared to four, three, or two button presses with a corresponding tradeoff in terms of how easy it is to activate the panic button when needed.” *Id.* Petitioner contends that, considering the pros and cons, “a POSITA would have been motivated to use five button presses instead of three to, for example, further reduce the risk of accidental activation of the panic button.” *Id.* at 30–31 (citing Ex. 1002 ¶¶ 168–170).

Petitioner contends that a “POSITA would have understood the proposed combination to amount to the simple substitution of one known element (a panic button that must be pressed five times) for another (a panic button that must be pressed three times) to obtain predictable results (a panic button that is activated after five presses).” *Id.* at 31 (citing Ex. 1002 ¶ 170).

Other than as described for Ground 4A, Patent Owner does not dispute Petitioner’s contentions regarding the combination of Martin, Kim, and Dixit.

4. *Conclusion for Claim 14*

Petitioner has shown by a preponderance of the evidence that a POSITA would have been motivated to combine Martin, Kim, and Dixit with a reasonable expectation of success.

III. CONCLUSION

After considering the evidence and arguments presented in the Petition, we determine that Petitioner has established by a preponderance of the evidence that claim 15 is unpatentable as obvious as asserted in Ground 2 over Walker. Petitioner has also established that claims 9 and 11 are unpatentable as obvious as asserted in Ground 3A over the combination of Zellner and Kim. Furthermore, Petitioner has established that claims 9–14 are unpatentable as obvious as asserted in Ground 4A over the combination of Martin and Kim, and that claim 14 is further unpatentable as obvious as asserted in Ground 4B over the combination of Martin, Kim, and Dixit. We do not reach Grounds 1A, 1B concerning combinations of Walker and Kim, claims 10 and 12–14 in Ground 3A, and Ground 3B concerning the combination of Zellner, Kim, and Dixit.

IV. ORDER

For the foregoing reasons, it is

ORDERED that, pursuant to 35 U.S.C. § 318(a), claims 9–15 of the '404 patent have been shown to be unpatentable; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.⁶

⁶ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
9, 10, 12–14	103	Walker, Kim ⁷		
14	103	Walker, Kim, Dixit		
15	103	Walker	15	
9–14	103	Zellner, Kim	9, 11	
14	103	Zellner, Kim, Dixit		
9, 10, 12–14	103	Martin, Kim	9–14	
14	103	Martin, Kim, Dixit	14	
Overall Outcome			9–15	

Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

⁷ Because we determine that claims 9–15 are unpatentable under the Walker, Zellner and Kim, Martin and Kim, and Martin, Kim and Dixit grounds, we do not reach the remaining grounds.

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