

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UBER TECHNOLOGIES, INC.,
Petitioner,

v.

LBT IP II LLC,
Patent Owner.

IPR2022-00926
Patent 8,531,289 B2

Before CHARLES J. BOUDREAU, JOHN A. HUDALLA, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

HUDALLA, *Administrative Patent Judge*.

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

Uber Technologies, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 8–10 and 13–15 (“the challenged claims”) of U.S. Patent No. 8,531,289 B2 (Ex. 1001, “the ’289 patent”). Petitioner filed a Declaration of Scott Andrews (Ex. 1003)

with its Petition. LBT IP II LLC (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”). Patent Owner filed a Declaration of Eric Koskinen, Ph.D. (Ex. 2001) with its Preliminary Response.

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), we may not authorize an *inter partes* review unless the information in the petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons that follow, we institute an *inter partes* review as to claims 8–10 and 13–15 of the ’289 patent on all grounds of unpatentability presented.

I. BACKGROUND

A. *Real Parties-in-Interest*

Petitioner identifies Uber Technologies, Inc., as the real party-in-interest. Pet. 2. Patent Owner identifies LBT IP II LLC as the real party-in-interest. Paper 4, 1.

B. *Related Proceedings*

The parties identify the following proceedings related to the ’289 patent (Pet. 2; Paper 4, 1; Paper 6, 1):

LBT IP II LLC v. Uber Techs., Inc., No. 6:21-cv-01210 (W.D. Tex. Nov. 19, 2021), which was transferred to the Northern District of California as *LBT IP II LLC v. Uber Techs., Inc.*, No. 3:22-cv-03985 (N.D. Cal. July 7, 2022) (“the underlying litigation”);

IPR2022-00926
Patent 8,531,289 B2

IPR2022-00806 (“the Unified petition”), filed three days before the instant Petition, in which Unified Patents, LLC, also challenges claims 8–10 and 13–15 of the ’289 patent;

IPR2022-00879;

IPR2022-00880; and

IPR2022-00927.

C. The ’289 patent

The ’289 patent is directed to “monitoring location information of a tracking unit associated with an individual or object that uses wireless data transfer and/or wireless location and tracking systems.” Ex. 1001, 1:30–35. Figure 2A of the ’289 patent is reproduced below.

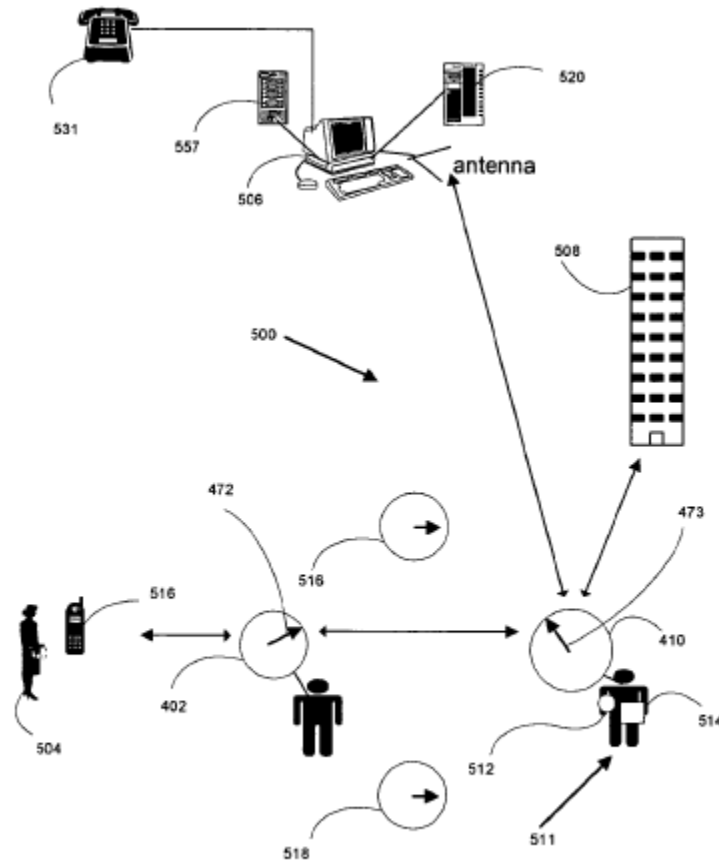


Figure 2A

Figure 2A depicts positioning and tracking system 500 for locating the first tracking device 402. *Id.* at 7:58–59. First tracking device 402 can be remotely activated by user 504, monitoring station 506, nearby base station 508, and/or second tracking device 410. *Id.* at 8:5–8. For example, user 504 may issue a request (including the user’s identification code) for location data associated with first tracking device 402 to monitoring station 506 using communication device 516 (e.g., a cellular phone). *Id.* at 8:14–24. Monitoring station 506 sends a signal with the user’s identification code to second tracking device 410. *Id.* at 8:16–17, 8:33–35. Second tracking device 410 compares a stored identification code with the user’s identification code. *Id.* at 8:45–46. If the codes match, second

tracking device 410 requests information, such as last known or last location coordinates, from first tracking device 402. *Id.* at 8:46–53. The location coordinates of first tracking device 402 are communicated by second tracking device 410 to any or all the following: user 504, nearby base station 508, and monitoring station 506. *Id.* at 9:3–6.

The application that led to the '289 patent claims priority to, *inter alia*, another application that was filed on February 1, 2005 (i.e., the earliest effective filing date). Ex. 1001, code (63). Petitioner applies this date for qualifying the asserted references as prior art. *See* Pet. 9.

D. Illustrative Claim

Of the challenged claims, claims 8 and 13 are independent. Claims 9 and 10 depend directly or indirectly from claim 8, and claims 14 and 15 depend directly or indirectly from claim 13. Claim 8 is illustrative of the challenged claims and recites:

8. A system comprising:
 - a first tracking device having a first transceiver configured to receive a first request signal from a remote user terminal, and to transmit a first reply signal that comprises a first identification code; and
 - a second tracking device having a second transceiver that is configured to:
 - (i) receive the first reply signal;
 - (ii) compare the first identification code to a stored identification code;
 - (iii) determine location coordinates of the first tracking device; and
 - (iv) communicate a second reply signal that comprises the location coordinates to a monitoring station

connected to the user terminal in part responsive to verification of the first identification code.

Ex. 1001, 16:65–17:13.

E. Prior Art

Petitioner relies on the following prior art:

U.S. Patent No. 6,169,497 B1, filed Dec. 16, 1994, issued Jan. 2, 2001 (Ex. 1012, “Robert”);

U.S. Patent Application No. 2003/0182055 A1, filed Jan. 20, 2003, published Sept. 25, 2003 (Ex. 1013, “Curatolo”);
and

U.S. Patent No. 6,661,372 B1, filed Oct. 6, 2000, issued Dec. 9, 2003 (Ex. 1011, “Girerd”).

F. The Asserted Grounds

Petitioner challenges claims 8–10 and 13–15 of the ’289 patent based on the following grounds (Pet. 4):

Claims Challenged	35 U.S.C. §	References
8–10, 13–15	103(a) ¹	Robert
8–10, 13–15	103(a)	Robert, Curatolo
8, 13	103(a)	Girerd

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103. Because the ’289 patent was filed before March 16, 2013 (the effective date of the relevant amendments), the pre-AIA versions of §§ 102 and 103 apply.

II. ANALYSIS

We now consider Petitioner’s asserted grounds and Patent Owner’s arguments to determine whether Petitioner has met the “reasonable likelihood” standard for institution under 35 U.S.C. § 314(a).

A. *Legal Standards*

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations.² *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We also recognize that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)).

B. *Level of Ordinary Skill in the Art*

Citing testimony from Mr. Andrews, Petitioner contends a person of ordinary skill in the art “would have had a bachelor’s degree in electrical

² The present record does not include any evidence of secondary considerations of nonobviousness.

engineering, computer engineering, computer science, or a related field, and at least two years of experience in the research, design, development, and/or testing of GPS and related positioning techniques.” Pet. 8 (citing, *inter alia*, Ex. 1002 ¶¶ 27–28, 33). Patent Owner disputes that “two years of work experience is a necessary requirement” for a person of ordinary skill in the art, but Patent Owner nonetheless states that this “distinction is not meaningful or determinative with respect to the issues raised in the petition.” Prelim. Resp. 18 (citing Ex. 2001 ¶¶ 34–35). Patent Owner does not otherwise offer a different definition of the level of ordinary skill in the art. We further note that Patent Owner’s declarant, Dr. Koskinen, applies Petitioner’s definition in his declaration. *See* Ex. 2001 ¶ 35.

For purposes of this Decision, we adopt Petitioner’s definition of the level of ordinary skill in the art without the two instances of “at least,” which introduce ambiguity. On the present record, we are satisfied that this definition comports with the level of skill necessary to understand and implement the teachings of the ’289 patent and the asserted prior art.

C. *Claim Interpretation*

In an *inter partes* review, we construe each claim

using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b), including 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). Accordingly, our claim construction standard is the same as that of a district court. *See id.* Under the standard applied by district courts, claim terms are generally given their plain and ordinary

meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Petitioner states that, “[t]o resolve the particular grounds presented in this Petition, Petitioner does not believe that any term requires explicit construction.” Pet. 9 (citing Ex. 1002 ¶ 30). Patent Owner likewise argues that no construction of any terms is necessary to resolve the disputes between the parties. Prelim. Resp. 18–19. Notwithstanding, Patent Owner expounds on its interpretation of the plain and ordinary meaning of the term “first identification code” in claims 8 and 13. *Id.* at 22–23. In particular, Patent Owner contends that “the first identification code uniquely identifies the first tracking device (either by identifying the device itself or the user of the device).” *Id.* at 22 (citing Ex. 1001, 7:58–8:13; Ex. 2001 ¶ 61).

On the preliminary record, we do not agree with Patent Owner that the “first identification code” must identify the device to be tracked. As acknowledged by Patent Owner (Prelim. Resp. 22), the Specification of the ’289 patent describes identification codes for both the first tracking device and for a user.³ *See, e.g.*, Ex. 1001, 7:65–8:49. We also see no indication in

³ We note that the ordinal numbers (i.e., “first” and “second”) applied to “identification code” in the Specification do not necessarily track the ordinal

the Specification that the recited “first identification code” must be limited to these two possibilities. Thus, we decline to limit the “first identification code” in the manner suggested by Patent Owner, and we instead apply the plain and ordinary meaning to this term. We encourage the parties to address the interpretation of “first identification code” at trial to the extent they do not agree with our preliminary determination.

For purposes of this Decision, we determine that no aspects of the challenged claims require explicit construction. *See, e.g., Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Patent Owner’s Arguments Regarding Discretionary Denial

Patent Owner argues that we should exercise our discretion under 35 U.S.C. §§ 315(d) and 325(d) to deny either the instant Petition or the Unified petition. Prelim. Resp. 11–18. Patent Owner notes that these petitions challenge the same claims of the ’289 patent, rely on overlapping art, and present “substantively identical arguments.” Prelim. Resp. 4, 12–14. In particular, Patent Owner highlights that certain grounds in both petitions assert Robert as a primary reference with different secondary references that are nonetheless used to teach the same limitations in the same way. *Id.* at 12–14. Under these circumstances, Patent Owner contends that it would be wasteful of Board resources and unfair to Patent Owner to institute review in

number “first” in “first identification code” as recited in the claims. *See* Ex. 1001, 7:65–8:49.

both cases. *See id.* at 15–17 (citing *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential) (“*General Plastic*”)).

Petitioner puts forth arguments regarding discretionary denial under § 314(a) related to the underlying litigation (Prelim. Resp. 57–65),⁴ but not related to the relationship between the instant Petition and the Unified petition. Petitioner also does not address § 325(d).

1. Arguments Under 35 U.S.C. § 314(a)

Section 314(a) provides that the Director

may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Section 314(a) does not require the Director to institute a review. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). Rather, a decision whether to institute is within the Director’s discretion, and that discretion has been delegated to the Board. *See General Plastic* at 15, 18–19; 37 C.F.R. § 42.4(a).

In *General Plastic*, the Board set forth a non-exhaustive list of factors to consider in evaluating whether to exercise discretion, under § 314(a), to deny a petition challenging a patent previously challenged before the Board, i.e., a follow-on petition. Those factors include:

⁴ Given that Patent Owner did not advance any discretionary denial arguments related to the underlying litigation, we need not discuss this issue.

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of the Board; and
7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

General Plastic at 16 (citing *NVIDIA Corp. v. Samsung Elec. Co.*, IPR2016-00134, Paper 9 at 6–7 (PTAB May 4, 2016)). These factors are “a non-exhaustive list,” and “additional factors may arise in other cases for consideration, where appropriate.” *Id.* at 16, 18.

Patent Owner contends Factor 1 weighs in favor of denial because Petitioner here is a member of Unified Patents and because the two petitions are directed to the same claims of the same patent. Prelim. Resp. 16–17. As such, Patent Owner contends “that Unified has a clear interest in challenging the '289 patent to help its paying member defend against assertions of infringement.” *Id.* at 17. Patent Owner also cites “telling silence from Unified on its decision to challenge the '289 patent.” *Id.* We do not agree with Patent Owner's arguments. Petitioner and Unified are not the same

petitioner, and Petitioner's status as a member of Unified does not convince us to treat them as such.⁵ Thus, we find Factor 1 weighs against exercising discretion to deny institution.

Patent Owner contends Factor 2 weighs in favor of denial because "Petitioner simply recycled Robert and filed a substantially similar petition to Unified's first petition" and did not "attempt[] to identify new art to form the basis of the second petition." *Id.* at 17. Although Petitioner may have become aware of Unified's use of Robert in the three days before Petitioner filed the instant Petition, we cannot fathom that Petitioner "recycled" aspects of Unified's petition and constructed a 65-page petition with a supporting declaration during that three-day gap. Still, Petitioner must have known of Robert, Curatolo, and Girerd when Unified filed its petition. Under these particular circumstances, we find that Factor 2 only marginally favors exercising discretion to deny institution.

Patent Owner contends that Factors 3–5 weigh in favor of denial given that Petitioner has provided no explanation for the timing of its Petition. *Id.* at 18. For Factor 3, Petitioner did not have the benefit of a preliminary response to the Unified petition or an institution decision. Thus, in the absence of any sort of "road mapping," Factor 3 weighs against exercising discretion to deny institution. For Factors 4 and 5, Patent Owner is correct that we do not have Petitioner's contentions regarding timing in the present record. Our only indication regarding timing is the three days

⁵ Our Decision on Institution in IPR2022-00806, which is being entered contemporaneously with this Decision, further addresses this issue. In that case, Patent Owner argues that Unified failed to identify all real parties-in-interest, but we decline to exercise our discretion to deny institution based on that argument.

that elapsed between the two petitions, and we find that time frame to be inconsequential. For this reason, we find Factors 4 and 5 to be neutral.

Factor 6 addresses “the finite resources of the Board” and Factor 7 pertains to the requirement under 35 U.S.C. § 316(a)(11) that we must issue a final determination within one year of institution. *General Plastic* at 16. Patent Owner contends that, in light of “the overlapping petitions,” Factors 6 and 7 support denial because “resources will be wasted in instituting both petitions.” Prelim. Resp. 17. Regarding Factor 6, we acknowledge some similarities in the petitions because they both use Robert as a primary reference and have some similar mappings. Notwithstanding, Petitioner relies on Robert to a greater degree and in a different manner than Unified. *See, e.g.*, Pet. 29–32 (Petitioner’s analysis of the “monitoring station” limitation, including a citation to claim 36 of Robert). This difference in the two petitions mitigates, to some degree, the fact that both petitions include analysis that is rooted in Robert. As such, we find that Factor 6 is neutral.

Regarding Factor 7, we also know of no reason why we could not meet the one-year requirement of § 316(a)(11) as a consequence of instituting both petitions. Accordingly, this factor weighs against exercising discretion to deny institution.

In summary, all but one of the *General Plastic* factors either weigh against exercising discretion to deny institution or are neutral. The other factor favors discretionary denial only marginally. Ultimately, we find that the different petitioner entities and the mere three-day gap between the petitions blunt Patent Owner’s suggestion that the instant petition somehow represents an abusive or unfair serial petition. Therefore, based on the

present record, we decline to exercise our discretion to deny institution of an *inter partes* review under § 314(a).

2. *Arguments Under 35 U.S.C. § 325(d)*

When determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). The Board uses a two-part framework in determining whether to exercise its discretion under § 325(d), specifically:

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office;
- and (2) if either condition of the first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential).

Petitioner’s arguments under § 325(d) are based on its allegations of “substantial overlap relating to Robert” and the two petitioners’ “nearly identical” arguments with respect to secondary references in combination with Robert. Prelim. Resp. 12–13. Yet, even if we were to assume that Patent Owner satisfies the first stage of the *Advanced Bionics* framework, Patent Owner cannot satisfy the second stage because the Office has not yet adjudicated the prior art and/or arguments that Patent Owner contends are the same or substantially the same. As such, Patent Owner cannot show that the Office “erred in a manner material to the patentability of challenged

claims.” For this reason, and based on the present record, we decline to exercise our discretion to deny institution of an *inter partes* review under § 325(d).

E. Obviousness Ground Based on Robert

Petitioner contends the subject matter of claims 8–10 and 13–15 would have been obvious over Robert. Pet. 15–38. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 21–31.

1. Robert

Robert is a U.S. patent directed to “a mobile tracking and positioning system in which a mobile target is tracked by two or more mobile tracking and positioning stations continuously as all the elements of the system . . . move about or over the surface of the earth.” Ex. 1012, 1:13–18. Figure 1 of Robert is reproduced below.

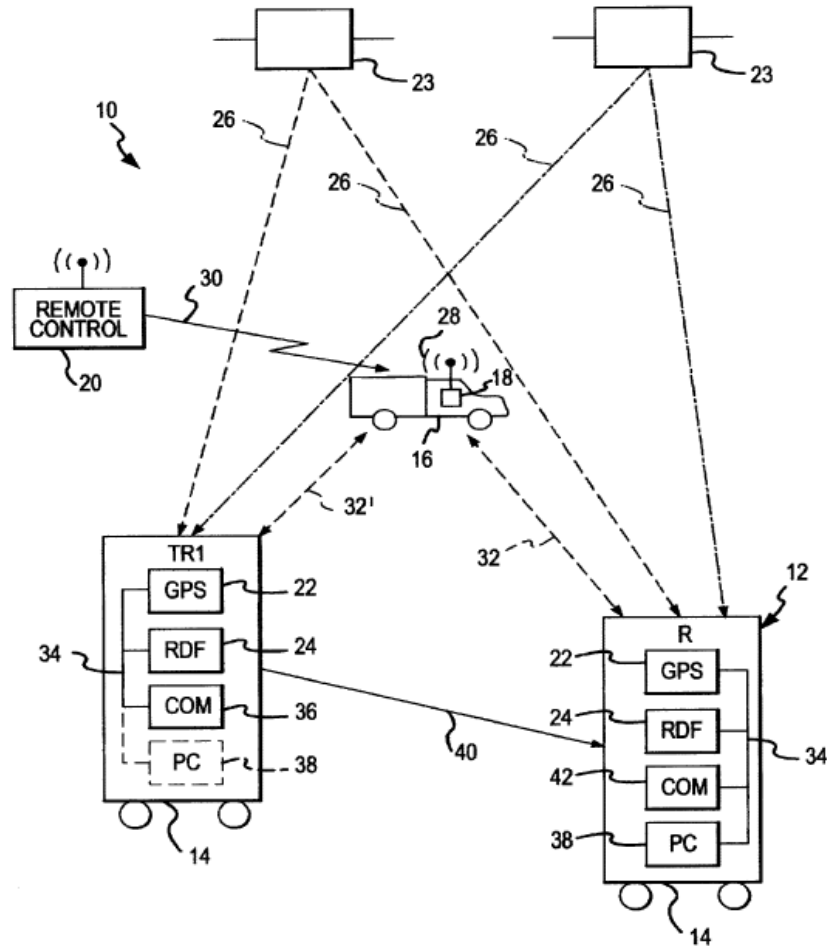


FIG.1

Figure 1 depicts mobile tracking and positioning system 10 in schematic form. *Id.* at 4:13–15. System 10 includes mobile receive (R) station 12, mobile transmit and receive (TR) station 14, and mobile target 16 to be tracked and located by receive station 12 and transmit and receive station 14. *Id.* at 4:15–19. Target 16 includes transmission unit 18, which broadcasts communication signal 28 after tracking is initiated. *Id.* at 4:19–22. Tracking may be initiated when target 16 receives initiation signal 30 from remote control unit 20, transmit and receive station 14, or receive station 12. *Id.* at 4:22–28, 8:6–8. Transmit and receive station 14 and receive station 12 are self-contained, portable units that include GPS receivers 22 that receive

position information from satellites 23 and radio direction finders (RDF) 24 for receiving communication signal 28 broadcast from target 16 and for responsively determining direction vector 32 between the station and the target. *Id.* at 4:29–37, 4:55–67.

Figure 3 of Robert is reproduced below

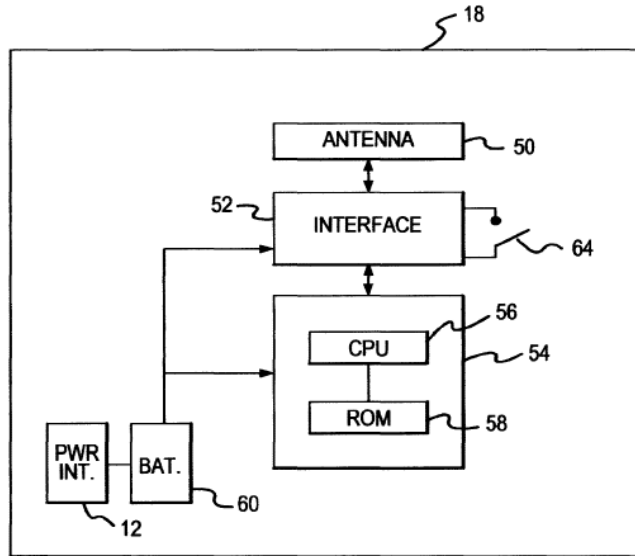


FIG.3

Figure 3 is a block diagram of transmission unit 18. Ex. 1012, 8:23–24. Transmission unit 18 includes antenna 50, communications interface 52, computer system 54 with central processing unit 56, memory 58, and battery 60. *Id.* at 8:26–33, 8:38–40. Antenna 50 receives initiation signals 30 and broadcasts communication signals 28 to transmit and receive stations 14 and receive stations 12. Transmission unit 18 receives coded signals, processes them in communications interface 52, and passes them to computer 54, which compares the coded signals with stored codes in memory 58 and configures the signal to be transmitted by interface unit 52. *Id.* at 8:54–63.

Initiation signal 30 may include a first coded activation signal that is associated with a particular target to be tracked, and a second coded identification signal that is associated with receive stations 12 or transmit and receive stations 14 that are designated to track target 16. Ex. 1012, 9:31–38. Transmission unit 18 broadcasts the second identification signal in communication signal 28 to mobile transmit and receive stations 14 and mobile receive stations 12. *Id.* at 9:51–67. Only those stations 12 and 14 in which their own internal identification codes match the second identification signal become activated to track target 16. *Id.* at 9:67–10:7.

Petitioner contends that Robert qualifies as prior art under 35 U.S.C. § 102(b) based on its issue date. Pet. 10. Patent Owner does not contest the prior art status of Robert at this juncture. For purposes of this Decision, we determine that Robert qualifies as prior art under 35 U.S.C. § 102(b) because Robert’s issue date of January 2, 2001, is more than one year before the earliest effective filing date of the challenged claims, which is February 1, 2005. Ex. 1001, code (63); Ex. 1012, code (45).

2. *Claim 8*

The preamble of claim 8 recites “[a] system.” Ex. 1001, 16:65. Petitioner cites Robert’s system 10 for tracking mobile targets, which is depicted in Figure 1 of Robert. Pet. 15–16 (citing Ex. 1012, Abstr., 4:13–28, 7:62–8:2, Fig. 1). Neither party addresses whether the preamble is limiting. Patent Owner does not dispute Petitioner’s analysis of the preamble. Because Petitioner shows sufficiently for purposes of institution that Robert teaches the preamble (*see, e.g.*, Ex. 1012, Abstr., 4:13–28, 7:62–8:2, Fig. 1),

we need not determine whether the preamble is limiting. *See Realtime Data*, 912 F.3d at 1375.

Claim 8 further recites “a first tracking device having a first transceiver configured to receive a first request signal from a remote user terminal, and to transmit a first reply signal that comprises a first identification code.” Ex. 1001, 16:66–17:2. Petitioner maps the recited “first tracking device” to Robert’s transmission unit 18 in mobile target 16. Pet. 16–18 (citing Ex. 1012, 7:62–8:2, Fig. 1). Petitioner further maps the recited “first transceiver” to Robert’s communications interface 52. *Id.* at 18–19 (citing Ex. 1012, 8:30–36). Petitioner contends that Robert’s remote control 20 is a “remote user terminal” that sends initiation signal 30 (i.e., the recited “first request signal”) to communications interface 52 in transmission unit 18 in order to “initiat[e] the whole tracking process.” *Id.* at 16–17 (emphasis omitted) (quoting Ex. 1012, 8:4–11) (citing Ex. 1012, 7:62–8:2, Fig. 1). Petitioner further contends that communications interface 52 in transmission unit 18 transmits communication signal 28 (i.e., the recited “first reply signal”), which contains “the IDs (each being ‘a first identification code’) of the mobile tracking station (TR1 14, and R 12) expected to respond to signal 28.” *Id.* at 18 (citing Ex. 1012, 8:30–36), 20–21 (citing Ex. 1012, 9:63–67, 10:26–33).

Patent Owner argues that Petitioner has not established that Robert teaches a “first identification code” that identifies the “first tracking device.” Prelim. Resp. 21–26. In particular, Patent Owner notes Petitioner’s identification of “a communication signal 28 that comprises the IDs of ‘the mobile tracking station (TR1 14, and R 12) expected to respond to signal 28.’” *Id.* at 24 (citing Pet. 20). Patent Owner argues that “Petitioner

and its expert are relying on the receive station 12 (*the alleged second tracking devices*) comparing its **own** personal ID codes to the ID code in the received transmission.” *Id.* As such, Patent Owner argues that “[i]dentifying the TR stations 14 and/or receive stations 12 to perform tracking of a target is not comparable to a ‘first identification code’ that is uniquely associated with the ‘first tracking device.’” *Id.* at 25 (citing Ex. 2001 ¶ 67).

As discussed above (*see supra* § II.C), and based on the present record, we do not agree that the “first identification code” must identify the “first tracking device.” Thus, we are persuaded preliminarily that Robert’s disclosure of communication signal 28 (i.e., the recited “first reply signal”) including “id codes of the chosen mobile transmit and receive stations 14 that are designated for participation” teaches the “first identification code” under a plain and ordinary meaning of that term. Ex. 1012, 10:26–33. We also are persuaded preliminarily that Robert’s “id codes” apply equally to receive stations 12. *See* Pet. 21 n.7; Ex. 1012, 9:63–67 (describing the broadcasting of “a second identification signal to the mobile transmit and receive stations 14 and mobile receive stations 12”).

Otherwise, Patent Owner does not dispute Petitioner’s analysis of the “first tracking device” limitation. Petitioner shows sufficiently that Robert’s transmission unit 18 teaches the “first tracking device” (*see, e.g.*, Ex. 1012, 7:62–8:2, Fig. 1); Robert’s communications interface 52 teaches the “first transceiver” in transmission unit 18 (*see, e.g.*, Ex. 1012, 8:30–36, Fig. 3); and Robert’s remote control 20 teaches the “remote user terminal” that sends initiation signal 30 (i.e., the recited “first request signal”) to transmission unit 18, where it is received (*see, e.g.*, Ex. 1012, 7:62–8:2, 8:4–11, Fig. 1).

Claim 8 further recites “a second tracking device having a second transceiver.” Petitioner maps the recited “second tracking device” to Robert’s mobile tracking station R 12. Pet. 21–22 (citing Ex. 1012, 4:29–37, 4:55–67, Fig. 1). Petitioner also cites communication unit 42 within mobile tracking station R 12 for teaching the recited “second transceiver.” *Id.* at 22–23 (citing Ex. 1012, 4:38–45, 5:30–35). Patent Owner does not dispute Petitioner’s analysis of this limitation. Petitioner shows sufficiently that Robert’s mobile tracking station R 12 teaches the “second tracking device” (*see, e.g.*, Ex. 1012, 4:29–37, 4:55–67, Fig. 1) and communication unit 42 in mobile tracking station R 12 teaches the “second transceiver” (*see, e.g.*, Ex. 1012, 4:38–45, 5:30–35).

Claim 8 further recites that the second tracking device having the second transceiver is configured to “(i) receive the first reply signal.”⁶ Ex. 1001, 17:3–5. Petitioner cites Robert’s teaching of mobile tracking station 12 having “direction means 24 ***for receiving the communication signal 28 broadcast from the target 16*** and for responsively determining the direction (vector) 32 between the station and the target.” Pet. 24 (emphasis by Petitioner) (quoting Ex. 1012, 4:55–58). Patent Owner does not dispute Petitioner’s analysis of this limitation. Petitioner shows sufficiently that Robert’s direction means 24 in mobile tracking station 12 receives

⁶ The parties do not appear to address the issue of whether the “second tracking device” as a whole or the “second transceiver” in particular must be configured to perform the actions recited in parts (i)–(iv). We find Petitioner’s contentions keyed to the former interpretation to be sufficient for institution. At trial, we encourage the parties to address this potential claim interpretation issue to the extent they believe it is necessary.

communication signal 28 (i.e., the recited “first reply signal”). *See, e.g.*, Ex. 1012, 4:55–58.

Claim 8 further recites that the second tracking device having the second transceiver is configured to “(ii) compare the first identification code to a stored identification code.” Ex. 1001, 17:3–7. Regarding the recited comparison, Petitioner cites Robert’s teaching that “transmit and receive stations 14 and *the receive stations 12 that have personal id codes that match the id codes transmitted in the communication signal* are placed in a powered-up mode.” Pet. 25 (emphasis by Petitioner) (quoting Ex. 1012, 10:37–41). Petitioner contends that “personal identification codes unique to [a] station are stored in the memory of computer 38 (of R 12).” *Id.* at 26 (citing Ex. 1012, 7:41–46, 8:44–47).

Patent Owner disputes Petitioner’s analysis of this limitation for similar reasons to those mentioned above: that Robert’s “id codes” (i.e., the “first identification code”) identify receive stations 12 and transmit and receive stations 14 (i.e., the “second tracking device”) rather than transmission unit 18 (i.e., the “first tracking device”). Prelim. Resp. 24–26. Nevertheless, for the same reasons discussed above, and based on the present record, we do not agree that the “first identification code” must identify the device being tracked. Thus, we are persuaded that Robert teaches matching the “id codes” for receive stations 12 and transmit and receive stations 14 to each station’s unique code stored in memory before powering up a station. *See, e.g.*, Ex. 1012, 7:41–46, 8:44–47, 10:37–41.

Claim 8 further recites that the second tracking device having the second transceiver is configured to “(iii) determine location coordinates of the first tracking device.” Ex. 1001, 17:3–9. Petitioner contends that mobile

tracking station R 12 “receives both the coordinates of the other mobile tracking station, TR1 14, and its directional vector 32 to target 16 in signal 40.” Pet. 27 (citing Ex. 1012, 6:30–34, Fig. 2B). Petitioner further contends that mobile tracking station R 12 uses this information “to precisely locate the position of [target] T: the intersection of the vectors 32 and 32’,’ using triangulation.” Pet. 27–28 (alteration by Petitioner) (quoting Ex. 1012, 6:21–23) (citing Ex. 1012, 6:47–50, Fig. 4 (steps 7–8)). As such, Petitioner contends that an ordinarily skilled artisan “would have understood or been motivated to express the location ‘T’ in ‘location coordinates’ form represented by, for example, longitude and latitude because this is of familiar type used by paper and electronic map providers.” *Id.* at 29 (citing Ex. 1002 ¶ 114). Patent Owner does not dispute Petitioner’s analysis of this limitation. Petitioner shows sufficiently that Robert teaches mobile tracking station R 12 determining location coordinates of target 16 (in which transmission unit 18 resides) via triangulation. *See, e.g.*, Ex. 1002 ¶ 114; Ex. 1012, 6:21–23, 6:30–34, 6:47–50, Figs. 2B, 4.

Claim 8 further recites that the second tracking device having the second transceiver is configured to “(iv) communicate a second reply signal that comprises the location coordinates to a monitoring station connected to the user terminal in part responsive to verification of the first identification code.” Ex. 1001, 17:3–12. Petitioner cites the same teachings from Robert regarding determining location (discussed above) and further cites Robert’s teaching of displaying the determined location on a map at mobile tracking station R 12. Pet. 29 (citing Ex. 1012, 10:64–65). Petitioner additionally cites Robert’s teaching that, “[w]ith the location thus determined, the station 12 can take *any appropriate action*, such as notify the authorities,

proceed to the target location, log the position in a journal, etc.” *Id.* (emphasis by Petitioner) (quoting Ex. 1012, 5:67–6:3). Petitioner further cites Robert’s claim 36 for the proposition that “[t]he exact location can also be transmitted in a ‘second reply signal’ to a ‘remote station’ (i.e. a monitoring station) with a display device that communicates with mobile tracking stations.” *Id.* at 29–30 (citing Ex. 1012, 18:22–25).

In light of these teachings, Petitioner contends that an ordinarily skilled artisan would have understood that “‘any’ appropriate action would have included the obvious action of notifying the sender, who may be the holder of the remote control 20 (the remote user terminal), of the location of the tracked device via a second reply signal.” Pet. 30 (citing Ex. 1002 ¶ 116). According to Petitioner, such actions “would include ‘notifying the authorities’ to determine the location of missing or stolen vehicles, for example.” *Id.* Petitioner further cites Robert’s teaching of an operator of its disclosed system and contends that an ordinarily skilled artisan

would have recognized that a monitoring station manned by the “operator of the system” having features such as a display . . . would be a logical and advantageous place from which to control the mobile tracking stations and monitor and display tracking updates with the location coordinates of various tracked vehicles.

Id. at 30–31 (citing Ex. 1002 ¶ 118; Ex. 1012, 11:20–26, 12:29–32, 18:22–25).

Patent Owner argues that “Petitioner has not demonstrated that Robert’s ‘second tracking device’ communicates with anything comparable to a monitoring station connected to the user terminal.” Prelim. Resp. 27. According to Patent Owner, “Robert simply provides a blanket suggestion that its receive station, once the location of a target has been determined, can

take ‘any appropriate action, such as notify the authorities,’” and “does not disclose or suggest that ‘the authorities’ are connected to any device that may have requested the location information.” *Id.* at 27–28 (citing Ex. 1012, 6:1–3; Ex. 2001 ¶ 71).

We do not agree with Patent Owner’s argument because it does not consider the totality of Petitioner’s argument—particularly Petitioner’s citation to claim 36 of Robert. Claim 36 of Robert recites “a display device being located at a remote station that communicates with said processor for indicating the position of said target.” Ex. 1004, 18:23–25. Petitioner likens Robert’s “remote station” that displays position information to the recited “monitoring station” of claim 8. Pet. 29–30. Petitioner also cites Robert’s teaching of station 12 taking “any appropriate action, such as notify[ing] the authorities,” after location is determined. *Id.* at 29 (emphasis omitted) (quoting Ex. 1012, 5:67–6:3). Petitioner and Mr. Andrews both contend that, in view of these teachings, an ordinarily skilled artisan “would have found it obvious for the reply signal sent from tracking station 12 to have been received by a monitoring station connected to remote control 20.” Pet. 30; Ex. 1002 ¶ 117. We are persuaded preliminarily by Petitioner’s showing that an ordinarily skilled artisan would have known to implement a monitoring system based on Robert’s teachings of notifying authorities and of a remote station for displaying position information. *See, e.g.*, Ex. 1002 ¶ 117; Ex. 1004, 5:67–6:3, 18:23–25. We also find Mr. Andrews’s testimony on this point more persuasive on the preliminary record than Dr. Koskinen’s responsive testimony because Dr. Koskinen does not address Petitioner’s citation to claim 36 of Robert. *See* Ex. 2001 ¶¶ 69–75.

Petitioner has shown sufficiently that, in view of the knowledge of a person of ordinary skill in the art, Robert teaches all limitations of claim 8. Based on the present record, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that the subject matter of claim 8 would have been obvious over Robert.

3. *Claims 9, 10, and 13–15*

We have reviewed Petitioner’s analysis for claims 9 and 10, which depend directly or indirectly from claim 8. We also have reviewed Petitioner’s analysis for claim 13, which is an independent claim reciting a “tracking device” with limitations similar in scope to those of claim 8. We additionally have reviewed Petitioner’s analysis for claims 14 and 15, which depend directly or indirectly from claim 13. Claims 14 and 15 are similar in scope to claims 9 and 10, respectively. Patent Owner relies on the same arguments discussed above with respect to claim 8. Based on the present record, we determine that Petitioner has established a reasonable likelihood that it would prevail in showing that the subject matter of claims 9, 10, and 13–15 would have been obvious over Robert.

F. *Obviousness Ground Based on Robert and Curatolo*

Petitioner contends the subject matter of claims 8–10 and 13–15 would have been obvious over the combination of Robert and Curatolo. Pet. 38–42. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 31–35.

1. *Curatolo*

Curatolo is a U.S. patent application publication directed to “a security and tracking apparatus with overt and covert signaling units in communicating proximity on a person, an animal, or a material asset, with a fully automated system to rapidly and reliably indicate location on demand.” Ex. 1013 ¶ 5. Figure 2 of *Curatolo* is reproduced below.

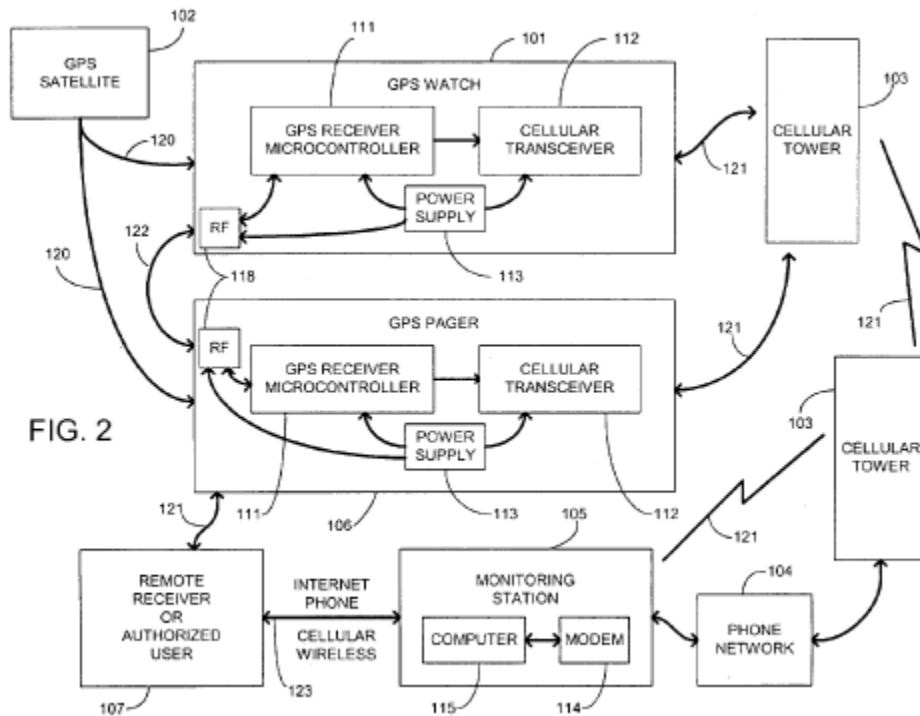


Figure 2 depicts a security and tracking system. *Id.* ¶ 35. Main subsystem signaling unit 101 may be a wristwatch having GPS receiver 111 and cellular transceiver 112. *Id.* ¶¶ 76–77. Main subsystem signaling unit 101 receives requests for location and transmits location data on demand. *Id.* ¶ 77. Monitoring station 105 requests and receives location on demand from and logs all communications with any subsystem signaling unit. *Id.* ¶¶ 81–82. Monitoring station 105 may also communicate with the proper authorities. *Id.* ¶ 82.

Petitioner contends that Curatolo qualifies as prior art under 35 U.S.C. § 102(b) based on its publication date. Pet. 12. Patent Owner does not contest the prior art status of Curatolo at this juncture. For purposes of this Decision, we determine that Curatolo qualifies as prior art under 35 U.S.C. § 102(b) because Curatolo's publication date of September 25, 2003, is more than one year before the earliest effective filing date of the challenged claims, which is February 1, 2005. Ex. 1001, code (63); Ex. 1013, code (43).

2. *Claims 8–10 and 13–15*

We have already determined that Petitioner has established a reasonable likelihood of success that it would prevail in showing that claims 8–10 and 13–15 would have been obvious based on Robert, and we will be instituting on all challenged claims and all grounds presented in the Petition. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348 (2018) (holding that the Board may not institute review on fewer than all claims challenged in the petition); 37 C.F.R. § 42.108(a) (“When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

Nevertheless, we include the following discussion regarding Robert–Curatolo obviousness ground.

Petitioner's obviousness analysis based on Robert and Curatolo builds upon its analysis for the Robert obviousness ground discussed above. Petitioner additionally cites Curatolo's monitoring station 105 for teaching the recited “monitoring station” of the challenged claims. Pet. 39 (citing Ex. 1013 ¶¶ 39, 77, 81–82, Fig. 2, claim 13). Petitioner contends that an

ordinarily skilled artisan “would have been motivated to implement Curatolo’s teachings of monitoring station 105 with separate, but connected, remote receiver/authorized user 107 in the Robert system.” *Id.* at 39–40 (citing Ex. 1002 ¶ 137). According to Petitioner, an ordinarily skilled artisan would have considered the modification beneficial “in allowing the monitoring station operator to perform centralized tasks such a ‘log all transaction, i.e., communications . . . [in] a database, which stores all pertinent information,’ and also to communicate locations to the proper authorities via a remote receiver connected to the internet.” *Id.* at 40–41 (quoting Ex. 1013 ¶ 82) (citing Ex. 1002 ¶¶ 138–139) (alteration by Petitioner). Petitioner also contends an ordinarily skilled artisan would have had a reasonable expectation of success in making the combination with “commercially available computers and [a] hand-held PDA.” *Id.* at 41 (citing Ex. 1002 ¶ 140; Ex. 1013 ¶ 75).

Patent Owner disputes Petitioner’s rationale for the combination, but Patent Owner’s arguments focus on differences between Curatolo and the challenged claims. *See* Prelim. Resp. 32–34. For example, Patent Owner argues that Curatolo “lacks the 4-device configuration reflected in claims 8 and 13” and that Curatolo “entirely omits any device comparable to a second tracking device as the term is used in claims 8 and 13.” *Id.* Yet one cannot show nonobviousness by attacking references individually where Petitioner’s obviousness ground is based on combinations of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981). We also do not agree with Patent Owner’s argument (Prelim. Resp. 34–35) that the difference between Robert’s radio broadcast signals and Curatolo’s cellular-based communications would undermine Petitioner’s proposed combination.

For these reasons and based on the present record, we are persuaded preliminarily that Curatolo teaches the “monitoring station” of the challenged claims and that an ordinarily skilled artisan would have had a reason to implement Curatolo’s monitoring station 105 in the Robert system with a reasonable expectation of success.

G. Obviousness Ground Based on Girerd

Petitioner contends the subject matter of claims 8 and 13 would have been obvious over Girerd. Pet. 42–57. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 35–40.

1. *Girerd*

Girerd is a U.S. patent directed to using client-server computer networks to access remote sensors having associated position determination sensors. Ex. 1011, 1:17–19. Figure 1A of Girerd is reproduced below.

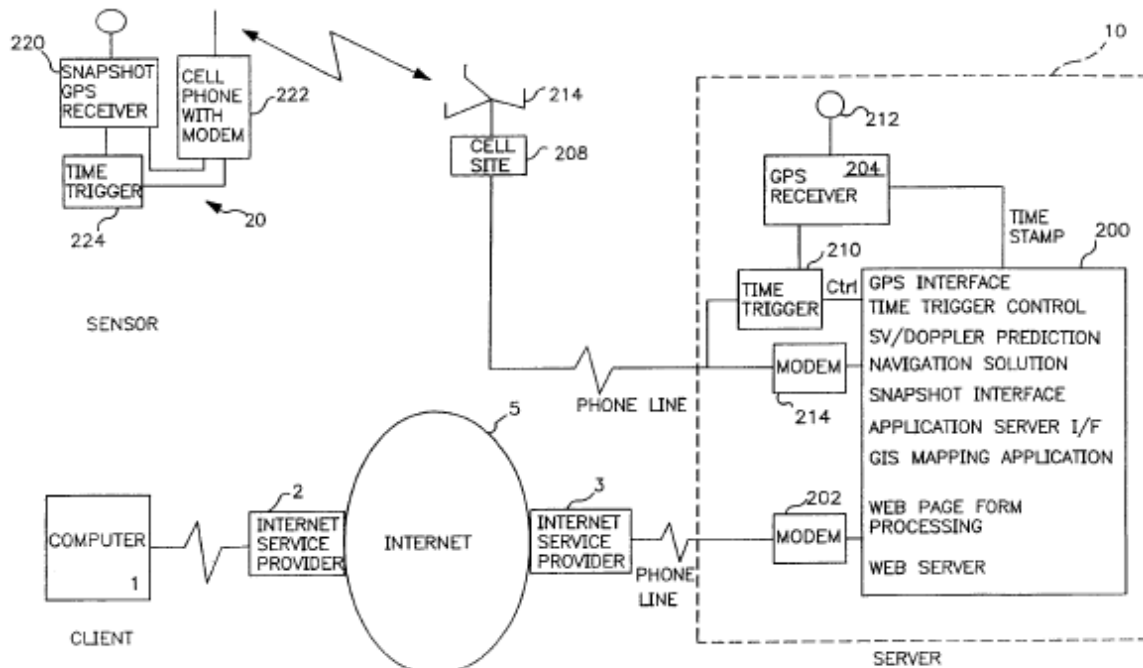


FIG. 1A

Figure 1A is a block diagram of a system for determining the location of a remote sensor. *Id.* at 3:1–4. User computer 1 and base station 10 are connected to Internet 5. *Id.* at 3:33–46. Base station 10 includes server 200, which is a Web Server that can be accessed by user computer 1. *Id.* at 3:45–46, 3:53–55. Base station 10 also includes GPS receiver 204 and a connection to cellular telephone transmitter site 208 via modem 214. *Id.* at 3:66–67, 4:16–17. Remote sensor 20 includes conventional cellular telephone 222 connected to GPS receiver 220. *Id.* at 4:27–29. GPS receiver 220 responds to commands from server 200 to take a position fix from GPS satellites. *Id.* at 4:30–34. Server 200 interrogates remote sensor 20, which is identified based on an identification code provided at user computer 1. *Id.* at 5:32–33. Server 200 responds by transmitting positioning data to server 200, where it is analyzed to derive the location of remote sensor 20. *Id.* at 5:33–36. The location of remote sensor 20 is transmitted from server 200 to computer 1 for display. *Id.* at 5:25–28.

2. *Claims 8 and 13*

We have already determined that Petitioner has established a reasonable likelihood of success that it would prevail in showing that claims 8–10 and 13–15 would have been obvious based on Robert and based on the combination of Robert and Curatolo, and we will be instituting on all challenged claims and all grounds presented in the Petition. *See SAS*, 138 S. Ct. 1348; 37 C.F.R. § 42.108(a). Nevertheless, we include the following discussion regarding Girerd obviousness ground.

In support of its obviousness analysis for claim 8, which is illustrative, Petitioner provides a highlighted version of Girerd's Figure 1A, which is reproduced below.

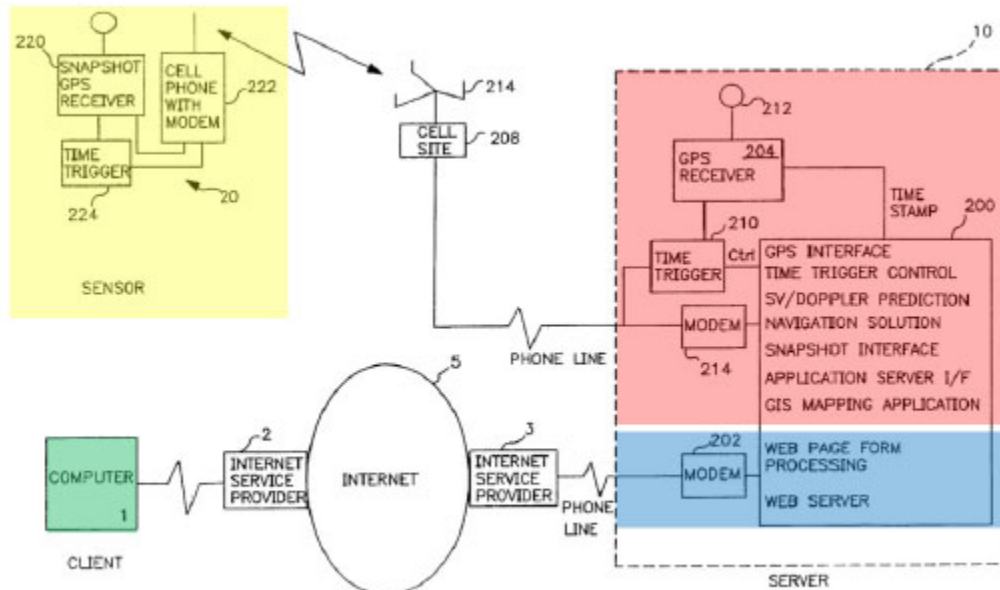


FIG. 1A

Pet. 14 (reproducing Ex. 1011, Fig. 1A). In this version of Girerd's Figure 1A, Petitioner has indicated its mappings of the "first tracking device" in yellow, the "second tracking device" in red, the "remote user terminal" in green, and the "monitoring station" in blue. *Id.* In particular, Petitioner maps the recited "second tracking device" to "portions of Girerd's base station 10 that perform the tracking subsystem functions related to tracking remote sensor 20," which allegedly include "Modem 214, GPS Receiver 204, and the software executed on server 200 related to locating and tracking remote sensor 20." *Id.* at 47–48 (citing Ex. 1011, Fig. 1A). Petitioner further contends that modem 214 is the recited "second transceiver" because "it both transmits and receives information in analog, modulated form." *Id.* For the recited "monitoring station," Petitioner cites

“a web server component . . . in base station 10.” *Id.* at 53 (citing Ex. 1011, Fig. 1A).

Regarding the limitation “a second tracking device having a second transceiver that is configured to: . . . communicate a second reply signal . . . to a monitoring station,” Petitioner contends that “Girerd’s second tracking device communicates a second reply signal that comprises the location coordinates to a monitoring station.” Pet. 54. Petitioner further cites Girerd’s Figure 6 for the proposition that “a map, which expressly contains ‘location coordinates’ . . . is transmitted back to the user ‘as a web page’ at step 322.” *Id.* (citing Ex. 1011, claim 22). Petitioner explains that “the web page and web server components [in base station 10] are thus a monitoring station at least because they allow the user to continually monitor the location of remote sensor 20.” *Id.*; *see also* Ex. 1002 ¶ 162 (similar testimony from Mr. Andrews).

Patent Owner disputes Petitioner’s analysis insofar as it “suggests that the operation of [Girerd’s] ‘base station 10’ can be split into two different devices, and more specifically suggests that the functionality of the ‘server 200,’ which forms a part of the base station 10, can be split into two different devices.” Prelim. Resp. 37. Petitioner contends that Girerd does not support such an interpretation, and that Girerd instead describes a single server. *Id.* (citing Ex. 1011, 16:56–67; Ex. 2001 ¶¶ 89–91). Patent Owner further disputes Petitioner’s analysis to the extent that Petitioner’s mapping results in the “second reply signal” being “sent within the server itself.” *Id.* at 40 (citing Ex. 2001 ¶ 93).

We agree with Patent Owner that Petitioner has not supported sufficiently its mapping of the “second tracking device” and the “monitoring

station” onto different portions of Girerd’s base station 10 and, more particularly, server 200. Petitioner also does not explain adequately how one portion of server 200 communicates the “second reply signal” to another portion of server 200. *See* Pet. 53–55. Specifically, Petitioner provides no analysis supporting that modem 214 (i.e., the recited “second transceiver”) is used to communicate the “second reply signal” from the tracking subsystem in sever 200 to the web server components in sever 200 (*see id.* at 46–47, 53–55)—a seemingly illogical way to communicate within sever 200, but one that results from Petitioner’s strained analysis based on Girerd. This appears to be a fatal flaw in Petitioner’s analysis.

III. CONCLUSION

After considering the evidence and arguments presented in the current record, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to at least one of the claims challenged in the Petition. Accordingly, we institute an *inter partes* review on all of the challenged claims and all grounds presented in the Petition. At this stage of the proceeding, we have not made a final determination as to the patentability of the challenged claims.

IV. ORDER

Accordingly, it is

ORDERED that pursuant to 35 U.S.C. § 314, *inter partes* review is instituted as to claims 8–10 and 13–15 of the '289 patent with respect to all grounds of unpatentability presented in the Petition; and

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

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Patent 8,531,289 B2

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