

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOYOTA MOTOR CORP.,
Petitioner,

v.

INTELLECTUAL VENTURES II, LLC,
Patent Owner.

IPR2022-00708
Patent 9,291,475 B2

Before SCOTT A. DANIELS, FREDERICK C. LANEY, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

Toyota Motor Corp. (“Petitioner”) filed a Petition to institute an *inter partes* review of claims 1–20 (the “challenged claims”) of U.S. Patent 9,291,475 B2 (Ex. 1001, “the ’475 patent”). Paper 1 (“Pet.”). Intellectual Ventures II, LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). After receiving authorization, Petitioner filed a Reply (“Pet. Reply,” Paper 7), and Patent Owner filed a Sur-Reply (“PO Sur-Reply,” Paper 11). *See* Ex. 1049.

We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review. 35 U.S.C. § 314; 37 C.F.R. § 42.4(a) (2020). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition.”

After considering the Petition, the Preliminary Response, the Reply, the Sur-Reply, and the evidence of record, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail with respect to at least one of claims 1–20. Accordingly, we institute an *inter partes* review of all challenged claims on all asserted grounds pursuant to 35 U.S.C. § 314. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359–1360 (2018) (requiring institution on all claims, if any); *see also* Patent Trial and Appeal Board

Consolidated Trial Practice Guide 64 (Nov. 2019) (providing guidance in view of *SAS*).¹

B. Real Parties-in-Interest

Petitioner identifies itself, as well as Toyota Motor North America, Inc, Toyota Motor Engineering & Manufacturing North America, Inc., and Toyota Motor Sales, U.S.A., Inc. as the real parties-in-interest. Pet. 78. Patent Owner identifies itself as the real party-in-interest. Paper 4, 2.

C. Related Proceedings

Petitioner and Patent Owner state that the '475 patent is involved in (1) *Intellectual Ventures I LLC et al. v. Toyota Motor Corp. et al.*, 2:21-cv-00389 (E.D. Tex. October 19, 2021); (2) *Intellectual Ventures I LLC et al. v. Honda Motor Company, Ltd. et al.*, 2:21-cv-00390 (N.D. Tex. April 4, 2022)²; and (3) *Intellectual Ventures I LLC et al. v. General Motors Company*, 6:21-cv-01088 (W.D. Tex. October 19, 2021). Pet. 78; Paper 4, 2. Petitioner and Patent Owner also note that Unified Patents, LLC filed an *inter partes* review (IPR2022-00429)³ challenging the '475 patent.

D. Overview of the '475 Patent

The '475 patent is titled “Device, System and Method for Controlling Speed of a Vehicle Using a Positional Information Device.” Ex. 1001, code (54). The '475 patent discloses that the position information device can “alert a user if they are violating a local speeding limit,” and also

¹ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

² Subsequent to Petitioner filing its mandatory notices, *Intellectual Ventures I LLC et al. v. Honda Motor Company, Ltd. et al.*, 2:21-cv-00390 (E.D. Tex. October 19, 2021), was dismissed and re-filed in the Northern District of Texas. Paper 4, 2; Ex. 2002, 19.

³ We granted institution of IPR2022-00429 on Aug. 11, 2022.

“communicat[es] a subject vehicle’s speed to a central server where it can be utilized to analyze traffic congestion patterns or notify selected companies or individuals.” *Id.* at 2:16–22. The ’475 patent explains that this enables the driver to be alerted to the vehicle speed, and optionally permits the vehicle to be controlled to operate at the speed limit, as well as alerting an employer “if his employee is speeding in the company car,” or alert “a parent who wants to know if their child is obeying (or breaking) the speed limits.” *Id.* at 8:2–4, 8:15–19, 10:28–31.

The ’475 patent discloses that the positional information device can be hand-held global positioning system (GPS) device 100 or any type of navigation or positional information device including a vehicle-mounted device. *Id.* at 3:26–33, Fig. 1. The ’475 patent discloses that when device 100 is powered on and functioning, the device will obtain locational information (from the overhead satellites) to allow processing module 120 to determine the device’s location. *Id.* at 7:28–31. Processing module 120 determines the vehicle’s speed by, for example, measuring the time elapsed and distance between two specific points, and the user’s speed can then be displayed on a display module. *Id.* at 7:42–47.

Processing module 120 may be configured to “compare the determined speed limit to the current rate of speed of the vehicle, and will generate an alert if the user is moving the vehicle in excess of the posted limit.” *Id.* at 7:59–62. The ’475 patent also discloses that processing module 120 may be configured to send the vehicle speed, location, and the time and date of the speed reading to remote computer server 504. *Id.* at 9:4–9. “[R]emote server 504 can set up notification alarms plotted against the posted speed limit of a selected location so that if cars are traveling

under or over the posted speed limits, the server 504 can alert any requested party.” *Id.* at 9:30–34. The remote server can receive various “information, including a location of GPS device 100, time of location, speed of vehicle at a specific time, violation notice of any posted speed limit, and any other information that the device 100 may have or be able to calculate internally.” *Id.* at 10:18–22. “This information could then be seen instantly by a recipient on a terminal 510 coupled to the communications network 502 or stored and later viewed by the recipient 510 by accessing the information at the server 504 via a conventional Internet browser.” *Id.* at 10:23–27.

E. Illustrative Claim

Petitioner challenges claims 1–20 of the ’475 patent. Pet. 1. Challenged claims 1, 8, and 15 are independent. Claim 1 is illustrative, and is reproduced below.

1. A method of notifying a recipient of a violation by a driver of a vehicle, the method comprising:

determining, by a computing device located within a vehicle, information about the vehicle:

determining, by the computing device located within the vehicle, that the vehicle committed a violation based on the information about the vehicle; and

sending, from the computing device located in the vehicle to a remote computing system, an indication of the violation;

wherein the remote computing device is configured to notify a recipient about the violation committed by the vehicle.

Ex. 1001, 10:46–58.

Independent claim 8 is substantially similar to claim 1 except that claim 8 is directed to a non-transitory computer-readable medium having instructions that when executed cause a computing device to perform similar

steps to the above-noted determining, sending and notifying steps. Ex. 1001, 11:14–28. Independent device claim 15 is substantially similar to claim 1 except that claim 15 includes various modules configured to perform similar steps to the above-noted determining, sending and notifying steps. *Id.* at 12:11–25.

F. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–20 of the '475 patent are unpatentable on the following seven grounds:

Claim(s) Challenged	35 U.S.C. §⁴	Reference(s)/Basis
1, 2, 4–9, 11–16, 18–20	102	Flick ⁵
3, 10, 15–20	103	Flick, Mittelsteadt ⁶
4, 11, 18	103	Flick, Treyz ⁷
18	103	Flick, Mittelsteadt, Treyz
1–20	102	Fernandez ⁸
1–20	103	Fernandez
4, 11, 18	103	Fernandez, Treyz

Petitioner also relies on the Declaration of Kevin C. Almeroth, Ph.D. (Ex. 1004).

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. §§ 102 and 103 effective March 16, 2013. Because the '475 patent's effective filing date predates the AIA's amendments to §§ 102 and 103, this decision refers to the pre-AIA versions of §§ 102 and 103.

⁵ US 2002/0158778 A1, published Oct. 31, 2002 (Ex. 1005, “Flick”).

⁶ US 6,556,905 B1, issued Apr. 29, 2003 (Ex. 1007, “Mittelsteadt”).

⁷ US 6,526,335 B1, issued Feb. 25, 2003 (Ex. 1008, “Treyz”).

⁸ US 6,748,322 B1, issued June 8, 2004 (Ex. 1006, “Fernandez”).

II. PATENT OWNER’S REQUEST FOR DENIAL UNDER 35 U.S.C. § 314(a)

A. Denial Based on *Fintiv*

Patent Owner asserts that the Petition should be discretionarily denied under 35 U.S.C. § 314(a) by application of the factors (“*Fintiv* factors”) set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential). Prelim. Resp. 2–22.

“[W]here the PTAB determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fintiv*.” USPTO Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022) 4–5 (“Interim Procedures”).⁹ Further, “[c]ompelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” *Id.* at 4.

On the current record, we agree with Petitioner that “[t]he petition presents ‘compelling evidence of unpatentability.’” Pet. Reply 1 (citing Interim Procedures 1). As Petitioner notes, “despite the centrality of the merits to the *Fintiv* analysis, the POPR is silent on the substance of the petition.” *Id.* For the reasons below in our analysis, we determine that the merits of Petitioner’s anticipation grounds based on Fernandez appear to be particularly strong for the independent claims and for the dependent claims for this ground. *See infra* § III.G (explaining that, on the current record,

⁹ Available at

https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

Petitioner has shown that Fernandez discloses the subject matter of claims 1, 8, and 15, as well as a number of the dependent claims). Because Petitioner presents compelling evidence of unpatentability at this stage, we decline to exercise our discretion under § 314(a) to deny the Petition.

B. Denial Based on General Plastic

Patent Owner asserts that the Petition should be discretionarily denied under 35 U.S.C. § 314(a) by application of the factors (“*General Plastic* factors”) set forth in *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i). Prelim. Resp. 23–35; PO Sur-Reply 1–4. In *General Plastic*, the Board set forth a non-exhaustive list of factors to consider when asked to exercise its discretion to deny review of follow-on petitions, including:

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, Paper 19 at 16.

1. General Plastic Factor 1

Patent Owner asserts that Unified Patents filed a prior petition challenging the claims of the '475 patent, namely, IPR2022-00429 (“the 429 IPR”), and that Toyota, the present Petitioner, should have been named a real party in interest in the 429 IPR. Prelim. Resp. 23. According to Patent Owner, *General Plastic* Factor 1 weighs against institution because Toyota paid Unified to file the 429 IPR and Toyota should have been named as a real party in interest in the 429 IPR. *Id.* at 24. In the Patent Owner Sur-Reply, Patent Owner argues, “Unified’s pattern of filing a parallel IPR challenge the vast majority of time Toyota is sued for patent infringement is evidence of a *quid pro quo* and a substantial relationship between Toyota and Unified.” PO Sur-Reply 2. We disagree.

As set forth in our Decision to Institute in the 429 IPR, “[t]here is . . . no specific evidence that the Petition was filed at Honda’s or Toyota’s ‘behest.’” IPR2022-00429, Paper 12 at 11 (PTAB Aug. 11, 2022). Nor does the record establish that Unified’s membership arrangement is sufficient to make any member a real party in interest. *See id.* at 11–12 (“Unified’s members have never been held as RPIs.”). Instead, we agree with Petitioner that Patent Owner “fails to establish a ‘substantial relationship’ between Petitioner and Unified under *Valve [Corp. v. Elec. Scripting Prods., Inc.]*, IPR2019-00062, Paper 11 at 2, 10 (PTAB Apr. 2, 2019) (precedential)].” Pet. Reply 1.

In *Valve*, the Board, evaluating the first *General Plastic* factor, considered the “significant relationship” between two different parties filing two different petitions challenging the same claims, among other factors. *Valve*, Paper 11 at 10. In particular, the Board noted that “Valve and HTC

were co-defendants in the District Court litigation and were accused of infringing the [challenged] patent based on HTC’s VIVE devices that incorporate technology licensed from Valve.” *Id.* By contrast, here Petitioner asserts that it “has no control over the [429] IPR, did not participate or provide input into the [429] IPR, and had no knowledge of the [429] IPR until after it was filed.” Pet. 15; *see also* Pet. Reply 2. Although we agree with Patent Owner that Unified’s subscription fees provide an incentive to challenge patents asserted against its members, and recognize that Unified has challenged at least eight patents asserted against Petitioner in the past (Prelim. Resp. 25–27), that alone does not create the type of “significant relationship” that was found in *Valve* to favor denying institution.¹⁰

Moreover, the Director recently initiated a *sua sponte* Director review “to clarify the application of *General Plastic*.” IPR2022-00861, Paper 18 at 3 (PTAB Aug. 23, 2022). There, the Director determined that “factors 1–3 only weigh in favor of discretionary denial when there are ‘road-mapping’ concerns under factor 3 or other concerns under factor 2.” *Id.* at 5. The Director stated that “‘road-mapping’ concerns are minimized when, as in this case, a petitioner files a later petition that raises unpatentability challenges substantially overlapping with those in the previously-filed petition and the later petition is not refined based on lessons learned from

¹⁰ *See, e.g., Netflix Inc. and Hulu, LLC v. DivX, LLC*, IPR2020-00052, Paper 42 at 8–11 (PTAB May 14, 2020); *Mercedes-Benz USA, LLC v. Carucel Investments, L.P.*, IPR2019-01404, Paper 12 at 12–13 (PTAB Jan. 22, 2020) (finding petitioner’s membership in Unified did not amount to a relationship that justifies discretionary denial in light of other *General Plastic* factors); *Apple, Inc. v. Uniloc 2017 LLC*, IPR2019-01667, Paper 7 at 7–8 (PTAB Apr. 21, 2020).

later developments.” *Id.* Here, road-mapping is minimized because the present Petition was filed less than two months after the petition in the 429 IPR, no patent owner preliminary response was filed at that time, and no decision to institute was issued to refine the later petition. *See* Pet. 16. This is further evident from our below discussion of *General Plastic* factors 2 and 3.

2. *General Plastic Factor 2*

Patent Owner’s contention for this factor has two parts: 1) “that Petitioner’s lack of explanation regarding knowledge of the prior art asserted in the first petition weigh[s] in favor of denying institution” and 2) because “the Fernandez, Mittelsteadt and Treyz references relied on in the Petition in this case all cite Mardirossian (US Pat. 5,952,941)—the primary reference cited for multiple grounds in the [429] IPR . . . Toyota was well aware of the most relevant prior art relied on by Unified.” Prelim. Resp. 31–32.

However, even if Patent Owner’s contentions are true, Patent Owner provides no evidence that Toyota’s knowledge of the references was used to refine the later present Petition based on lessons learned from developments in the previously-filed 429 IPR.

3. *General Plastic Factor 3*

Patent Owner does not address this factor. *See* Prelim. Resp. 30–32. This is telling, because at the time of filing of this Petition, Petitioner had not already received Patent Owner’s preliminary response to the first petition, i.e., the 429 IPR or received the Board’s decision on whether to institute review in the 429 IPR. Thus, “road-mapping” is not an issue.

For the above reasons, because there is no evidence of “road-mapping,” *General Plastic* factors 1–3 favor not exercising discretionary denial.

4. *General Plastic* Factors 4 and 5

Regarding Factor 4, Patent Owner asserts that “Unified likely learned that Toyota had been sued shortly after Toyota had been served with the Complaint in the Toyota Litigation,” and notes that there is a six week lapse between when the 429 IPR was filed and the Petition in this proceeding was filed. Prelim. Resp. 33. However, we do not see six weeks as an unreasonable amount of time between learning of prior art references and filing a petition for *inter partes* review based on those references. Patent Owner argues that Petitioner has not explained why it could not have located the references earlier or filed the Petition earlier. *Id.* Factor 4 requires no such explanation. *General Plastic* Factor 4 favors not exercising discretionary denial.

Instead, factor 5 considers “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.” However, under the current circumstances, where the record demonstrates that the first petitioner and the second petitioner are different, and are not related to each other in any way, this consideration is not meaningful. Based on the current record, we find that *General Plastic* factor 5 is neutral.

5. *General Plastic* Factors 6 and 7

We have considered the resources of the Board as well as the requirement for the Board to issue a final determination not later than 1 year after the date on which the Director notices institution of review. Neither

presents any problem with instituting review in this proceeding at this time. In particular, although Patent Owner asserts that it is inefficient to expend Board resources on this proceeding, under factor 6, because the validity of the '475 patent will likely be adjudicated “well in advance of the Board’s projected statutory deadline” (Prelim. Resp. 35), Patent Owner’s assertions are based on the projected trial date, not the average time to trial. *See* Pet. Reply 4. Moreover, the Board’s mission to “improve patent quality and restore confidence in the presumption of validity that comes with issued patents” outweighs the impact on Board resources needed to evaluate the merits of a petition. *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 272 (2016). Therefore, we find that *General Plastic* factors 6 and 7 are neutral.

6. Conclusion

For the foregoing reasons, our consideration of the *General Plastic* factors in the circumstances of this case leads to the conclusion that the circumstances do not justify exercising discretionary denial of the Petition.

III. ANALYSIS

A. Legal Standards

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). Except in limited circumstances not present here, this burden of persuasion does not shift to the patent owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800

F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

1. Anticipation

A prior art reference can only anticipate a claim if it discloses all the claimed limitations “arranged or combined in the same way as in the claim.” *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1361 (Fed. Cir. 2012) (quoting *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008)). “However, a reference can anticipate a claim even if it ‘d[oes] not expressly spell out’ all the limitations arranged or combined as in the claim, if a person of skill in the art, reading the reference, would ‘at once envisage’ the claimed arrangement or combination.” *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) (alteration in original) (quoting *In re Petering*, 301 F.2d 676, 681 (CCPA 1962)); *see also Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1343 (Fed. Cir. 2016) (distinguishing *Net MoneyIN* when the reference in question explicitly contemplated the combination of the disclosed functionalities).

2. Obviousness

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which that subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art;

(3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness when presented. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In analyzing the obviousness of a combination of prior art elements, it can be important to identify a reason that would have prompted one of skill in the art “to combine . . . known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418. A precise teaching directed to the specific subject matter of a challenged claim is not necessary to establish obviousness. *Id.* Rather, “any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. Accordingly, a party who petitions the Board for a determination of unpatentability based on obviousness must show that “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (citations omitted).

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

B. Level of Ordinary Skill in the Art

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of invention. *Graham*, 383 U.S. at 17. Factors pertinent to determining the level of ordinary skill in the art include (1) the educational level of the inventor; (2) the type of problems encountered in the art; (3) prior-art solutions to

those problems; (4) the rapidity with which innovations are made; (5) the sophistication of the technology; and (6) the educational level of workers active in the field. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696–97 (Fed. Cir. 1983). Not all factors may exist in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive, but merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). Further, the prior art itself may reflect an appropriate skill level. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Petitioner asserts that at the time of the invention, one of ordinary skill in the art “would have had at least a four-year undergraduate degree in electrical engineering or computer science or a closely related field and at least two years of experience in the field of telecommunication, embedded systems, and/or computing devices.” Pet. 5–6 (citing Ex. 1004 ¶¶ 54–56). Petitioner asserts that “[a]dditional education could substitute for professional experience and vice versa.” *Id.* Patent Owner does not contest Petitioner’s assertion. *See generally* Prelim. Resp.

On the current record, we determine that Petitioner’s definition of a person of ordinary skill in the art is consistent with the scope and content of the ’475 patent (*see, e.g.*, Ex. 1001, 8:53–54 (“mobile terminal communications”), Fig. 6) and the asserted prior art (*see, e.g.*, Ex. 1006, Abstract (“system for monitoring the speed and location of a vehicle over a given area by using a global positioning system”), and, at this stage, we apply Petitioner’s definition for purposes of this Decision.

C. Claim Construction

Because Petitioner filed the Petition after November 13, 2018, we construe claim terms “using the same claim construction standard” that district courts use to construe claim terms in civil actions under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b). This rule adopts the same claim construction standard used by Article III federal courts, which follow *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny. Under that standard, the words of a claim are generally given their “ordinary and customary meaning,” which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent, including the specification. *See Phillips*, 415 F.3d at 1312–13. “[W]here a party believes that a specific term has meaning other than its plain meaning, the party should provide a statement identifying a proposed construction of the particular term and where the disclosure supports that meaning.” Office Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764 (Aug. 14, 2012); Patent Trial and Appeal Board Consolidated Trial Practice Guide (November 2019)¹¹ 44.

Petitioner asserts that claim terms should be given “their ordinary and customary meanings,” but identifies that the terms “information module,” “processing module,” and “transmission module” may require construction under 35 U.S.C. § 112, paragraph 6. Pet. 6–9. Patent Owner does not comment on Petitioner’s proposed constructions. *See generally* Prelim. Resp.

Based on the current record, and because our Decision does not turn on the specific construction of any of the claim language referenced by

¹¹ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

Petitioner, we determine that no explicit construction of terms is needed to resolve the issues presented to reach a decision on institution. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (per curiam) (claim terms need to be construed “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. Alleged Anticipation by Flick (Ground 1)

Petitioner asserts that claims 1, 2, 4–9, 11–16, and 18–20 would have been anticipated by Flick. Pet. 19–42. Petitioner also relies on the testimony of Dr. Almeroth to support its arguments. *Id.* Patent Owner does not dispute Petitioner’s assertions at this time. *See generally* Prelim. Resp.

1. Overview of Flick (Ex. 1005)

Flick is directed to “a tracking and alerting system for a vehicle.” Ex. 1005 ¶ 2. An embodiment of Flick’s system is depicted in Figure 1, reproduced below.

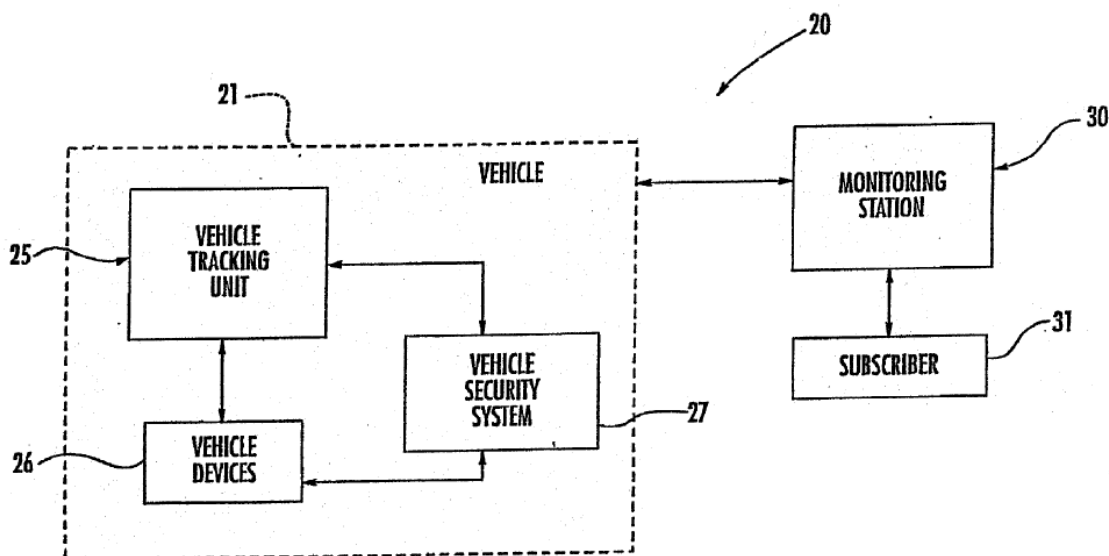


FIG. 1.

Figure 1 is a simplified block diagram of a vehicle tracking system. Ex. 1005 ¶ 16. Vehicle tracking system 20 of Figure 1 depicts vehicle tracking unit 25 that is mounted in vehicle 21 and monitoring station 30 that is remote from the vehicle. *Id.* ¶ 52. Flick discloses that monitoring station 30 provides service to subscribers 31, and operates to send messages to a subscriber or user via preprogrammed voice messages, e-mail messages, facsimile messages, and pager alerts *Id.* ¶ 54. Monitoring station 30 may communicate with vehicle tracking unit 25 through a cellular telephone tower 32 or a satellite. *Id.* ¶ 55. Additional details of tracking unit 25 are depicted in Figure 2, reproduced below.

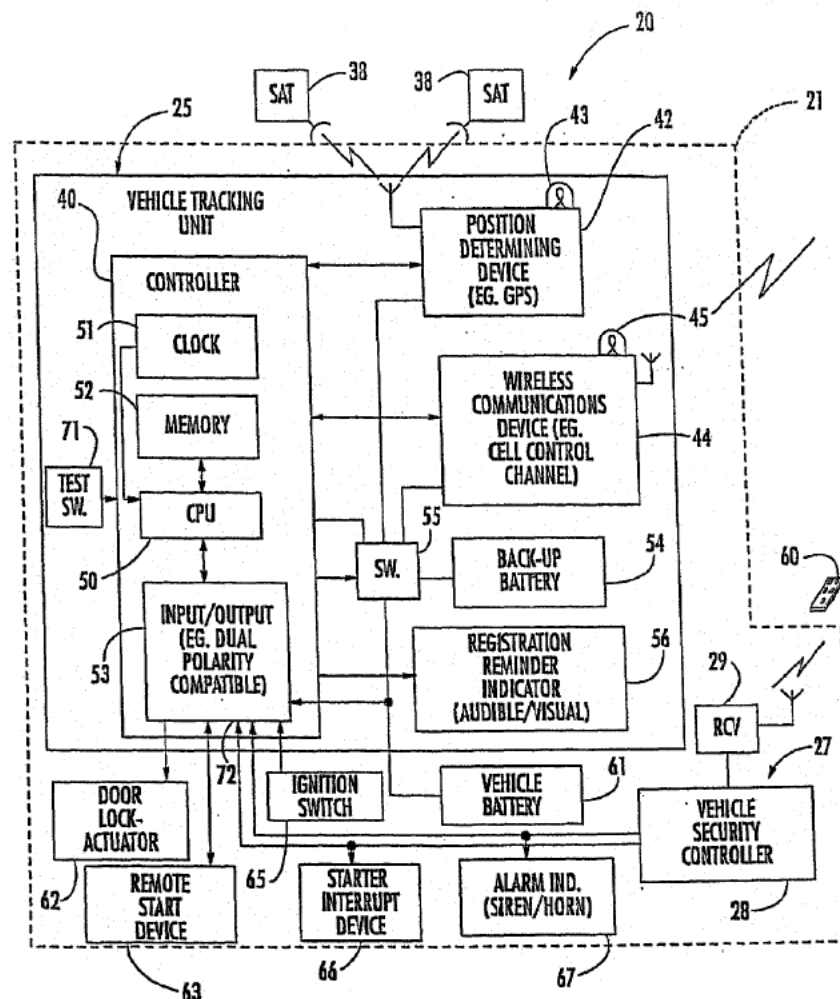


FIG. 2.

Figure 2 depicts a detailed block diagram of vehicle tracking unit 25. Ex. 1005 ¶ 17. Vehicle tracking unit 25 includes controller 40, vehicle position determining device 42, and wireless communications device 44 that are connected to each other. *Id.* ¶ 57. Vehicle position determining device 42 may include a GPS receiver that receives signals from satellites 38. *Id.* Flick's controller 40 cooperates with wireless communications device 44 and vehicle position determining device 42 to determine and send vehicle position information to monitoring station 30. *Id.* ¶ 66. For example, vehicle tracking system 20 "[d]etects the vehicle traveling over a

predetermined speed, such as for a predetermined time, and transmits a signal to the monitoring station to send a message, such as an e-mail informing the user (and/or others) of this occurrence.” *Id.* ¶ 105. The signal may take the form of an alert warning wherein the vehicle unit contacts the monitoring station to instantly send an e-mail message that indicates the “‘vehicle speed and location that the speeding started and how long speeding accrued’ (Detected from GPS).” *Id.* ¶ 147.

2. *Analysis of Claim 1*

Petitioner asserts claim 1 would have been anticipated by Flick. Pet. 19–42 (citing Exs. 1001, 1004, 1005). We use Petitioner’s notations to identify the claim elements.

a) *1 [Preamble] A method of notifying a recipient of a violation by a driver of a vehicle, the method comprising:*¹²

Petitioner asserts that if the preamble is limiting, Flick discloses its contents. Pet. 20. In particular, Petitioner asserts that Flick’s “‘tracking and alerting system for a vehicle’ 20” determines and sends alert messages indicating a violation to a remote monitoring station, which in turn generates and sends alert message notifications to “subscribers 31.” *Id.* at 19 (citing Ex. 1005 ¶¶ 2, 52, 54, 57, 84, 93, 96, 100, 105, 147, 196, 245, Abstract).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Flick discloses that vehicle tracking system 20 “[d]etects the vehicle traveling over a predetermined speed, such as for a

¹² We need not decide whether the preamble of claim 1 is limiting for purposes of this Decision, because Petitioner has demonstrated a reasonable likelihood of showing that the cited art teaches the preamble.

predetermined time, and transmits a signal to the monitoring station to send a message, such as an e-mail informing the user (and/or others) of this occurrence.” Ex. 1005 ¶ 105.

b) 1[a] determining, by a computing device located within a vehicle, information about the vehicle

Petitioner asserts that Flick’s vehicle tracking unit 25 “(i.e., the claimed ‘computing device’) is ‘mounted in’ (i.e., ‘located within’) the vehicle 21.” Pet. 20 (citing Ex. 1005 ¶ 52). Petitioner asserts that Flick’s vehicle tracking unit 25 includes vehicle position determining device 42, which “may be a Global Positioning System (GPS) device,” and which “determines vehicle position and speed information (information about the vehicle).” *Id.* at 20–21 (citing Ex. 1005 ¶¶ 11, 14, 57, 83, 93, 147, 245).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Flick discloses “vehicle tracking unit 25 to be mounted in the vehicle 21,” and includes “vehicle position determining device 42,” such as “a GPS receiver” that provides, *inter alia*, “position information.” Ex. 1005 ¶¶ 52, 57, 93.

c) 1[b] determining, by the computing device located within the vehicle, that the vehicle committed a violation based on the information about the vehicle;

Petitioner asserts that controller 40 of Flick’s vehicle tracking unit 25 includes a CPU 50 or other logic circuitry which “determines that the vehicle was speeding based on the vehicle speed information (committed a violation based on the information about the vehicle).” Pet. 22 (citing Ex. 1005 ¶¶ 57, 61, 72, 80, 83–85, 93, 147, 270, Abstract).

Patent Owner does not specifically contest Petitioner's contentions for this limitation of claim 1 at this time. We determine that Petitioner's contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Flick discloses that controller 40 of vehicle tracking unit 25 may send out an alert warning that "[i]ndicates the vehicle speed and location that the speeding started and how long speeding accrued' (Detected from GPS)." Ex. 1005 ¶ 147.

d) 1[c] sending, from the computing device located in the vehicle to a remote computing system, an indication of the violation

Petitioner asserts that "Flick discloses sending, from the in-vehicle tracking unit 25 . . . to the remote monitoring station 30 . . . (the claimed 'remote computing system') vehicle violation alert messages." Pet. 23 (citing Ex. 1005 ¶¶ 52 83, 84).

Patent Owner does not specifically contest Petitioner's contentions for this limitation of claim 1 at this time. We determine that Petitioner's contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Flick discloses that controller 40 of vehicle tracking unit 25 may send out an alert warning in which "the vehicle unit contacts the monitoring station to instantly send e-mail message 'vehicle was traveling faster than your preset amount.'" Ex. 1005 ¶¶ 72, 147, Fig. 1 (depicting monitoring station 30 separate (remote) from vehicle 21).

e) 1[d] wherein the remote computing device is configured to notify a recipient about the violation committed by the vehicle

Petitioner asserts that "Flick explains that '[t]he monitoring station 30 may comprise a user interface, such as one or both of the telephone network or internet interfaces 33, 34, respectively (FIG. 3), for generating a sequence of alert message notifications based upon receiving the alert message sent

from the vehicle tracking unit 25.’” Pet. 25 (citing Ex. 1005 ¶ 83) (alteration in original) (emphasis omitted).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Flick discloses “various user or subscriber notifications and features provided by the vehicle tracking system 20,” including “generating a sequence of alert message notifications based upon receiving the alert message sent from the vehicle tracking unit 25.” Ex. 1005 ¶ 83.

Having considered Petitioner’s un rebutted position, we conclude that, at this stage of the proceeding, Petitioner has shown a reasonable likelihood that it would prevail in challenging the patentability of independent claim 1.

3. Dependent Claims 2 and 4–7

Petitioner contends that the additional limitations of dependent claims 2 and 4–7 are disclosed by Flick. Pet. 27–32. Patent Owner does not specifically dispute Petitioner’s contentions for dependent claims 2 and 4–7 at this time. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Flick discloses the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Flick. *See* Pet. 27–32. We have reviewed Petitioner’s cited evidence and explanation regarding why Flick anticipates claims 2 and 4–7, and find it sufficient at this stage. For example, claim 2 requires that “the information about the vehicle comprises one or more of a location of the vehicle, a time that the vehicle was at a location, or a speed of the vehicle.” Ex. 1001, 10:59–62.

Flick discloses (“vehicle speed and location that the speeding started and how long speeding accrued’ (Detected from GPS).”) Ex. 1005 ¶ 147. On this record, we determine that Petitioner has shown a reasonable likelihood of success that Flick anticipates claims 2 and 4–7.

4. *Independent Claim 8*

As discussed above, independent claim 8 is substantially similar to claim 1 except that claim 8 is directed to a non-transitory computer-readable medium having instructions that when executed cause a computing device to perform similar steps to those of claim 1.

Petitioner contends that the limitations of independent claim 8 are disclosed by Flick. Pet. 33–35. Petitioner asserts that Flick’s vehicle tracking unit 25 includes controller 40 having CPU 50 and memory 52. *Id.* at 33. Petitioner’s declarant opines that one of ordinary skill in the art “would have understood that the controller (like Flick’s controller) requires a storage device (like Flick’s memory), for storing the predefined rules or program that allows a CPU of the controller (like Flick’s CPU) to process inputs and outputs, and that the memory would be a non-transitory computer-readable medium.” Ex. 1004 ¶ 98; *see also* Ex. 1005 ¶ 61. Patent Owner does not specifically dispute Petitioner’s contentions for claim 8 at this time. *See generally* Prelim. Resp.

Because Flick’s controller 40 includes a CPU and memory 52 that “may be an embedded memory in the CPU 50” (Ex. 1005 ¶ 61) and that stores “vehicle position information” (*id.* ¶ 99), and because “controller 40 may cooperate with the wireless communications device 44 and the vehicle position determining device 42 to determine and send vehicle position information to the monitoring station 30” (*id.* ¶ 87), Petitioner’s un rebutted

assertion adequately establishes that Flick operates based on instructions executed by the computing device.

5. Dependent Claims 9 and 11–14

Petitioner contends that the additional limitations of dependent claims 9 and 11–14 are disclosed by Flick. Pet. 35. Patent Owner does not present arguments for dependent claims 9 and 11–14 at this time. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Flick discloses the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Flick. *See* Pet. 35. We have reviewed Petitioner’s cited evidence and explanation regarding why Flick anticipates claims 9 and 11–14, and find it sufficient at this stage. For example, claim 9, like claim 2 requires that “the information about the vehicle comprises one or more of a location of the vehicle, a time that the vehicle was at a location, or a speed of the vehicle.” Ex. 1001, 11:29–32. As set forth above, Flick discloses this limitation because Flick determines “‘vehicle speed and location that the speeding started and how long speeding accrued’ (Detected from GPS).” Ex. 1005 ¶ 147. On this record, we determine that Petitioner has shown a reasonable likelihood of success that Flick anticipates claims 9 and 11–14.

6. Independent Claim 15

As discussed above, independent device claim 15 is substantially similar to claim 1 except that claim 15 includes various modules configured to perform similar steps to claim 1.

Petitioner contends that the limitations of independent claim 15 are disclosed by Flick. Pet. 36–42. Patent Owner does not present arguments for independent claim 15 at this time. *See generally* Prelim. Resp.

Given that Petitioner has adequately established that that Flick’s CPU 50 and controller 40, wireless communications device 44, and remote monitoring station 30 perform the steps of claim 1, Petitioner’s un rebutted assertion that the devices of Flick disclose the various modules of claim 15 is adequately supported.

7. Dependent claims 16 and 18–20

Petitioner contends that the additional limitations of dependent claims 16 and 18–20 are disclosed by Flick. Pet. 42. Patent Owner does not present arguments for dependent claims 16 and 18–20 at this time. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Flick discloses the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Flick. *See* Pet. 42. We have reviewed Petitioner’s cited evidence and explanation regarding why Flick anticipates claims 16 and 18–20, and find it sufficient at this stage. For example, claim 16, like claim 2 requires that “the information about the vehicle comprises one or more of a location of the vehicle, a time that the vehicle was at a location, or a speed of the vehicle.” Ex. 1001, 12:26–29. As set forth above, Flick discloses this limitation because Flick determines “‘vehicle speed and location that the speeding started and how long speeding accrued’ (Detected from GPS).” Ex. 1005 ¶ 147. On this

record, we determine that Petitioner has shown a reasonable likelihood of success that Flick anticipates claims 16 and 18–20.

8. Conclusion for Petitioner’s First Grounds

After considering the information presented in the Petition, we determine that Petitioner establishes a reasonable likelihood of prevailing on its challenge to at least one of claims 1, 2, 4–9, 11–16, and 18–20 of the ’475 patent.

E. Alleged Obviousness over Flick and Mittelsteadt (Ground 2)

Petitioner alternatively challenges claims 3, 10, and 15–20 as obvious over Flick and Mittelsteadt. Pet. 42–49. Patent Owner does not dispute Petitioner’s assertions at this time. *See generally* Prelim. Resp.

1. Overview of Mittelsteadt (Ex. 1007)

Mittelsteadt “is directed to a method for monitoring the use of a vehicle by selectively recording certain vehicle-operating data during vehicle operation.” Ex. 1007, 2:23–25. Mittelsteadt depicts an exemplary vehicle monitoring arrangement in Figure 1, reproduced below.

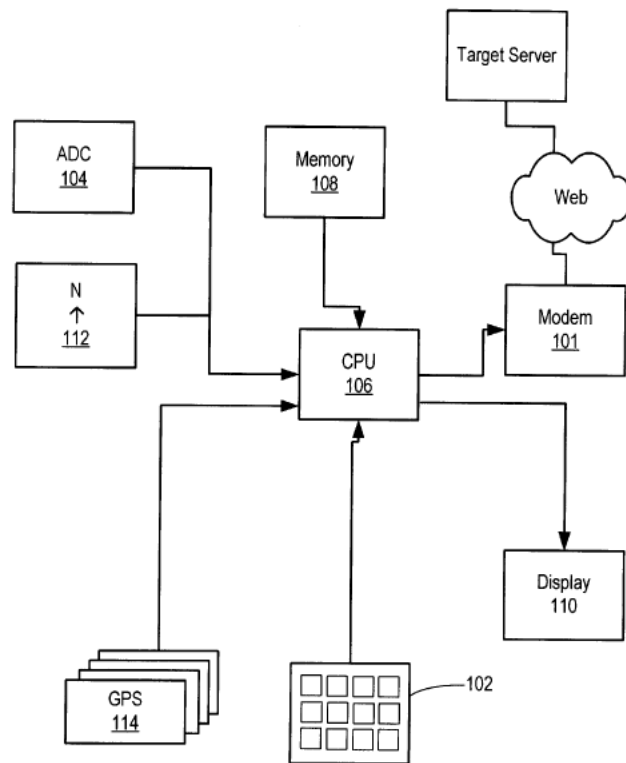


FIG. 1

Figure 1 is a diagram showing an example embodiment of a vehicle monitoring arrangement. Ex. 1007, 4:59–60. Mittelsteadt’s vehicle monitoring arrangement includes an in-vehicle computerized recording instrument with CPU 106, global positioning satellite (GPS) device 114, and speed signal 104. *Id.* at 4:59–66, 5:20–26. Mittelsteadt explains that “data recorded from the speed signal 104 on the vehicle is combined with knowledge or location of the vehicle,” as monitored by GPS 114, and “includes providing data useful in identifying the roads over which the vehicle is traveling,” and that GPS 114 routes the location information to CPU 106. *Id.* at 5:22–28. According to Mittelsteadt, “[w]hen used with the speed signal, the GPS (e.g., combined with a road-map navigator) 114 can also provide the speed limit on the road being traveled to the CPU 106.” *Id.*

at 5:31–34. Thus, according to Mittelsteadt, “[p]osition knowledge combined with knowledge of the posted speed limits on a specific roads permits the CPU 106 to calculate if a driver is exceeding the posted speed limit.” *Id.* at 5:34–37.

2. *Analysis of Ground 2*

Dependent claims 3, 10, and 17¹³ each recites, “the violation committed by the vehicle comprises a speed of the vehicle exceeding a posted speed limit.” Ex. 1001, 10:63–65, 11:33–35, 12:30–32.

Petitioner asserts that violations based on exceeding a posted speed limit were known, as evidenced by Mittelsteadt. Pet. 42. In particular, Petitioner asserts that Mittelsteadt’s use of a speed signal and GPS “combined with knowledge of the posted speed limits on a specific road permits the CPU 106 to calculate if a driver is exceeding the posted speed limit.” *Id.* at 43–44 (citing Ex. 1007, 5:31–37). According to Petitioner, it would have been obvious to use Flick’s GPS with Mittelsteadt’s posted speed limit information to “determine whether a vehicle violation has been committed based on a speed of the vehicle exceeding a posted speed limit to ‘make roadways safer and lessen abuse on vehicles.’” *Id.* at 44 (citing Ex. 1007, 2:18–21; *see also* Ex. 1004 ¶ 123).

We have reviewed Petitioner’s cited evidence and explanation regarding why Mittelsteadt discloses this limitation of claims 3, 10, and 17 and find it sufficient at this stage. In particular, Mittelsteadt “identif[ies] the roads over which the vehicle is traveling” and combines that information

¹³ We only address claims 3, 10, and 17, because, as discussed above, we determine that Petitioner has shown a reasonable likelihood of success that Flick anticipates claims 15, 16, and 18–20.

“with knowledge of the posted speed limits on a specific road[] [to] permit[] the CPU 106 to calculate if a driver is exceeding the posted speed limit.”

Ex. 1007, 5:22–37. We have reviewed Petitioner’s reasons to combine Flick with Mittelsteadt and find it sufficient at this stage. Specifically, we credit Dr. Almeroth’s un rebutted testimony that notifying a recipient, such as a parent, of posted speed limit violations “lead[s] to more responsible driving, less vehicular accidents based on posted speed limit violations, and safer roadways.” Ex. 1004 ¶ 123.

Based on a review of the current record at this stage of the proceeding, Petitioner has made a sufficient showing that the combination of Flick and Mittelsteadt discloses or suggests the subject matter of dependent claims 3, 10, and 15–20. On this record, we determine that Petitioner has shown a reasonable likelihood of success in establishing that the combination of Flick and Mittelsteadt renders obvious claims 3, 10, and 15–20.

*F. Alleged Obviousness over Flick, Mittelsteadt, and Treyz
(Grounds 3 and 4)*

Petitioner asserts that claims 4, 11, and 18 are obvious over the combination of Flick and Treyz (Ground 3), or in the alternative, that claim 18 is obvious over the combination of Flick, Mittelsteadt, and Treyz (Ground 4). Pet. 49–53. Patent Owner does not respond to Petitioner’s assertions. *See generally* Prelim. Resp. As noted above, we determine that Petitioner has adequately established that Flick discloses the limitations of claims 4, 11, and 18. Nonetheless, because Flick does not use the term “a browser,” as recited in these claims, we address Petitioner’s alternate grounds to provide Patent Owner sufficient information to formulate a response.

1. Overview of Treyz (Ex. 1008)

Treyz relates to “vehicle computer systems such as automobile personal computer systems.” Ex. 1008, 1:7–8. Treyz discloses a vehicle monitoring arrangement including a vehicle computing system that monitors certain conditions of the vehicle, including, e.g., “exceeding speed limits” based on position using GPS and speed information about the vehicle. *Id.* at 34:36–46. When certain conditions are met, “notifications” may be sent “to various parties” regarding “the driving behavior” including to “the user’s home 38 (FIG. 1), office 40 (FIG. 1), or handheld computing device.” *Id.* at 34:47–54. Treyz discloses that “[t]he results of the monitoring operation may be provided to the user as an e-mail notification or this information may be made available on a web site.” *Id.* at 35:36–38.

2. Analysis of Grounds 3 and 4

Each of claims 4, 11, and 18 recites, “the remote computing device is configured to notify the recipient about the violation committed by the vehicle by permitting the recipient to view the indication of the violation via a browser.” Ex. 1001, 10:66–11:2, 11:36–40, 12:33–36.

Petitioner asserts that to the extent Flick’s disclosure of “internet interface 34” and “WEB site” does not disclose a browser, Treyz discloses various messaging techniques including that the “driver and vehicle monitoring operations may be made available to various parties using a web-based approach.” Pet. 50 (citing Ex. 1008, 37:34–36). In particular, Petitioner asserts that Treyz discloses that “a web browser may be used to access . . . information” regarding the monitoring operations. *Id.* at 51 (citing Ex. 1008, 37:44–47; *see also* Ex. 1004 ¶ 138). According to Petitioner’s declarant, it would have been obvious to modify Flick’s

monitoring station to notify users via a browser, to enable the user to “view . . . vehicle violations in real-time at any time and place convenient for the subscriber through use of any remote computer or device having access to the internet.” Ex. 1004 ¶ 139 (citing Ex. 1008, 22:20–23).

We have reviewed Petitioner’s cited evidence and explanation regarding why Treyz discloses this limitation of claims 4, 11, and 18 and find it sufficient at this stage. In particular, Treyz discloses that “results of driver and vehicle monitoring operations may be made available to various parties using a web-based approach,” including that “a web browser may be used to access this information.” Ex. 1008, 37:34–46. We also have reviewed Petitioner’s reasons to combine Flick with Treyz and find it sufficient at this stage. Specifically, we credit Dr. Almeroth’s un rebutted testimony that notifying users via a browser enables the user to “view . . . vehicle violations in real-time at any time and place [that is] convenient.” Ex. 1004 ¶ 139.

Based on a review of the current record at this stage of the proceeding, Petitioner has made a sufficient showing that the combination of Flick and Treyz discloses or suggests the subject matter of dependent claims 4, 11, and 18. On this record, we determine that Petitioner has shown a reasonable likelihood of success in establishing that the combination of Flick and Treyz renders obvious claims 4, 11, and 18. Because Petitioner has shown a reasonable likelihood of success that the combination of Flick and Treyz renders obvious claim 18, at this stage of the proceeding, we need not determine whether the combination of Flick, Treyz, and Mittelsteadt also suggests the limitations of claim 18.

*G. Alleged Anticipation by or Obviousness Over Fernandez
(Grounds 5 and 6)*

Petitioner asserts that Fernandez anticipates claims 1–20, or in the alternative, renders obvious claims 1–20. Pet. 53–76. Petitioner also relies on the testimony of Dr. Almeroth to support its arguments. *Id.* Patent Owner does not dispute Petitioner’s assertions at this time. *See generally* Prelim. Resp.

1. Overview of Fernandez (Ex. 1006)

Fernandez is directed to a “speed monitoring system for motor vehicles” that “cross-references the position and speed of a vehicle with mapping software for a predetermined area where the vehicle is traveling.” Ex. 1006, 1:8–12. Fernandez explains that position and speed are combined with “conditions associated with the area where the vehicle is located in order to alert the user whether predetermined conditions have been reached or exceeded.” *Id.* at 1:16–20. According to Fernandez, by using the disclosed speed monitoring system, “[a] parent can be notified via a built-in recorder, or live through a transmitter inside the vehicle when his/her teenager son/daughter has exceeded the speed limit in a given area.” *Id.* at 1:37–40. An example of Fernandez’s speed monitoring system is depicted in Figure 1, reproduced below.

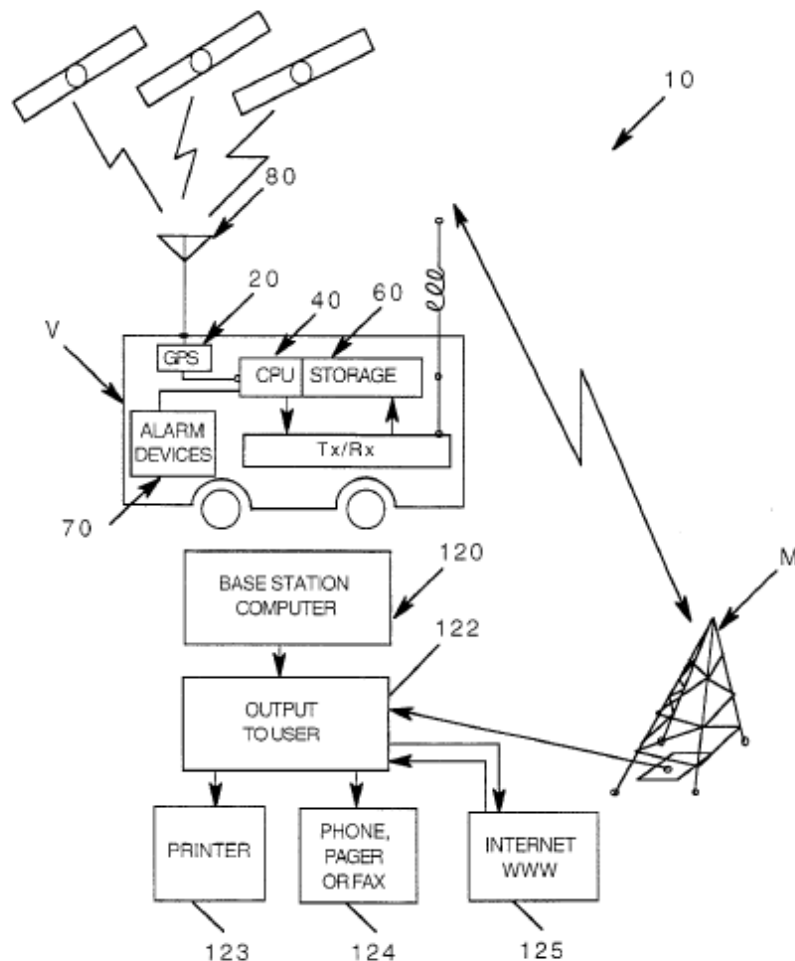


FIG. 1

Figure 1 depicts a diagram of speed monitoring system 10 for motor vehicles V having various assemblies. Ex. 1006, 2:18–19. System 10 includes, within vehicle V, computerized unit 40, memory or storage circuit 60, GPS 20, and transceiver assembly 80. *Id.* at 2:24–29, 2:53–55. Fernandez’s GPS 20 determines “a position fix and speed information” about the vehicle. *Id.* at 2:31–32. Fernandez’s computerized unit 40 and associated memory 60 store instructions and data, including mapping

software program that accepts the GPS position and speed information and “compare[s] it with predetermined speed limits for certain geographical areas through an overlay software that includes a user friendly interface.” *Id.* at 2:27–34. Fernandez explains that “[i]f these limits are exceeded, an output is generated and stored in memory circuit 60 for subsequent generation, transmission and analysis of an output signal.” *Id.* at 2:34–37. In a particular embodiment, Fernandez explains that if “these conditions are violated,” then “system 10 can be programmed to send a signal through transceiver assembly 80 to a remote computerized station 120 for further processing including the generation of an output signal or message 122.” *Id.* at 2:51–56. Fernandez disclose that the signal is transmitted to a user using transceiver assembly 80, and that “a user may be more or less actively involved (real time), or merely allow the system to develop a historical trail of the violations.” *Id.* at 2:61, 3:1–4.

2. *Analysis of Claim 1*

Petitioner asserts claim 1 would have been anticipated by, or in the alternative, obvious over Fernandez. Pet. 53–59, 74–76 (citing Exs. 1001, 1004, 1006). We use Petitioner’s notations to identify the claim elements.

a) 1 [*Preamble*] *A method of notifying a recipient of a violation by a driver of a vehicle, the method comprising:*¹⁴

Petitioner asserts that if the preamble is limiting, Fernandez discloses its contents. Pet. 53–54. In particular, Petitioner asserts that “Fernandez is directed to a ‘speed monitoring device’ and system for motor vehicles for

¹⁴ We need not decide whether the preamble of claim 1 is limiting for purposes of this Decision, because Petitioner has demonstrated a reasonable likelihood of showing that the cited art teaches the preamble.

notifying recipients of a violation (speeding) by a driver of a vehicle.” *Id.* at 53 (citing Ex. 1006, 2:53–3:2, Abstract).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Fernandez discloses that vehicle “position fix and speed information” are compared “with predetermined speed limits” and “[i]f these limits are exceeded, an output is generated” and transmitted to a user. Ex. 1006, 2:31–35; *see also id.* at 1:37–41 (“A parent can be notified . . . when his/her teenager son/daughter has exceeded the speed limit.”).

b) *1[a] determining, by a computing device located within a vehicle, information about the vehicle*

Petitioner asserts that Fernandez’s speed monitoring system is a computing device that includes, within vehicle V, computerized unit 40, memory or storage circuit 60, GPS 20, and transceiver assembly 80. Pet. 54 (citing Ex. 1006, 2:24–29, 2:53–55).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Fernandez discloses that “global positioning system (GPS) 20 [is] installed in vehicle V and connected to computerized unit 40 with associated memory or storage circuit 60” and that computerized unit 40 “accept[s] the position fix and speed information supplied by GPS 20.” Ex. 1006, 2:26–32.

- c) 1[b] determining, by the computing device located within the vehicle, that the vehicle committed a violation based on the information about the vehicle;*

Petitioner asserts that “Fernandez’s in-vehicle computing device determines that the vehicle committed a violation (speeding) by comparing the vehicle’s ‘position fix and speed information’ acquired by the GPS with ‘maximum speed limits for certain geographical areas and territories.’” Pet. 55–56 (citing Ex. 1006, 2:29–42).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Fernandez discloses that “the position fix and speed information supplied by GPS 20” to computerized unit 40 are compared “with predetermined speed limits for certain geographical areas through an overlay software” and “[i]f these limits are exceeded, an output is generated and stored in memory circuit 60 for subsequent generation, transmission and analysis of an output signal.” Ex. 1006, 2:31–37.

- d) 1[c] sending, from the computing device located in the vehicle to a remote computing system, an indication of the violation*

Petitioner asserts that “Fernandez explains that ‘if a speed limit is exceeded,’ a signal including the position fix and speed information associated with the speed limit violation (an indication of the violation) is sent from the computing device located in the vehicle to a remote computerized station 120.” Pet. 56–57 (citing Ex. 1006, 2:50–60).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of

institution. In particular, Fernandez discloses, “[i]f any of these conditions are violated . . . system 10 can be programmed to send a signal through transceiver assembly 80 to a remote computerized station 120 for further processing including the generation of an output signal or message 122.” Ex. 1006, 2:50–56.

- e) *1[d] wherein the remote computing device is configured to notify a recipient about the violation committed by the vehicle*

Petitioner asserts that “Fernandez’s remote computerized station 120 . . . ‘generat[es] . . . an output signal or message 122’ for notifying a user . . . (the claimed ‘recipient’) about the violation committed by the vehicle.” Pet. 58 (citing Ex. 1006, 2:53–60) (second alteration in original).

Patent Owner does not specifically contest Petitioner’s contentions for this limitation of claim 1 at this time. We determine that Petitioner’s contentions for this limitation of claim 1 are sufficient for purposes of institution. In particular, Fernandez discloses that “remote computerized station 120” generates “an output signal or message 122” than can “alert the user whether predetermined conditions have been reached or exceeded.” Ex. 1006, 1:19–20, 2:54–56.

Having considered Petitioner’s un rebutted position, we conclude that, at this stage of the proceeding, Petitioner has shown a reasonable likelihood that it would prevail in challenging the patentability of independent claim 1.

3. Dependent Claims 2–7

Petitioner contends that the additional limitations of dependent claims 2–7 are disclosed by Fernandez. Pet. 59–65. Patent Owner does not present

arguments for dependent claims 2–7 at this time. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Fernandez discloses or suggests the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Fernandez. *See* Pet. 59–65. We have reviewed Petitioner’s cited evidence and explanation regarding why Fernandez anticipates, or renders obvious claims 2–7, and find it sufficient at this stage. For example, claim 3 requires that “the violation committed by the vehicle comprises a speed of the vehicle exceeding a posted speed limit.” Ex. 1001, 10:63–65. Fernandez discloses that “speed information supplied by GPS 20 [is] compare[d] with predetermined speed limits for certain geographical areas,” and “[i]f these limits are exceeded, an output is generated.” Ex. 1006, 2:31–35. On this record, we determine that Petitioner has shown a reasonable likelihood of success that Fernandez anticipates, or renders obvious claims 2–7.

4. *Independent Claim 8*

As discussed above, independent claim 8 is substantially similar to claim 1 except that claim 8 is directed to a non-transitory computer-readable medium having instructions that when executed cause a computing device to perform similar steps to those of claim 1.

Petitioner asserts that Fernandez meets claim 8, because “Fernandez explains that the memory and storage circuit 60 stores ‘instructions and data,’ including set programs that are to be executed by the computerized unit 40 to cause the computing device to perform the vehicle speeding comparison and subsequent transmission.” Pet. 65–66 (citing Ex. 1006, 2:23–34, 2:53–60; Ex. 1004 ¶ 165). Patent Owner does not specifically

contest Petitioner's contentions for claim 8 at this time. *See generally* Prelim. Resp.

Given that storage circuit 60 of Fernandez is “for the storage of instructions and data,” and that the “instructions and data include a mapping software program modified to accept the position fix and speed information supplied by GPS 20 and compare it with predetermined speed limits” (Ex. 1006, 2:27–31), Petitioner's unrebutted assertion adequately establishes that Fernandez's computing device operates based on executed instructions.

5. *Dependent Claims 9–14*

Petitioner contends that the additional limitations of dependent claims 9–14 are disclosed by Fernandez. Pet. 67. Patent Owner does not present arguments for dependent claims 9–14. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Fernandez discloses or suggests the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Fernandez. *See* Pet. 67. We have reviewed Petitioner's cited evidence and explanation regarding why Fernandez anticipates, or renders obvious claims 9–14, and find it sufficient at this stage. For example, claim 10, like claim 3, requires that “the violation committed by the vehicle comprises a speed of the vehicle exceeding a posted speed limit.” Ex. 1001, 11:34–35. Fernandez discloses that “speed information supplied by GPS 20 [is] compare[d] with predetermined speed limits for certain geographical areas,” and “[i]f these limits are exceeded, an output is generated.” Ex. 1006, 2:31–35. On this record, we determine that Petitioner has shown a reasonable likelihood of success that Fernandez anticipates, or renders obvious claims 9–14.

6. *Independent Claim 15*

As discussed above, independent device claim 15 is substantially similar to claim 1 except that claim 15 includes various modules configured to perform similar steps to claim 1.

Petitioner contends that the limitations of independent claim 15 are disclosed by Fernandez. Pet. 67–74. Patent Owner does not present arguments for independent claim 15. *See generally* Prelim. Resp.

Given that Petitioner has adequately established that Fernandez’s computerized unit 40, memory or storage circuit 60, GPS 20, and transceiver assembly 80 perform the steps of claim 1, Petitioner’s un rebutted assertion that the devices of Fernandez disclose the various modules of claim 15 is adequately supported.

7. *Dependent claims 16–20*

Petitioner contends that the additional limitations of dependent claims 16–20 are disclosed by Fernandez. Pet. 74. Patent Owner does not present arguments for dependent claims 16–20 at this time. *See generally* Prelim. Resp.

Petitioner has made a sufficient showing that Fernandez discloses or suggests the limitations of these dependent claims by providing an analysis of each limitation and a comparison of the limitations to the disclosure of Fernandez. *See* Pet. 74. We have reviewed Petitioner’s cited evidence and explanation regarding why Fernandez anticipates, or renders obvious claims 16–20, and find it sufficient at this stage. For example, claim 17 like claim 3 requires that “the violation committed by the vehicle comprises a speed of the vehicle exceeding a posted speed limit.” Ex. 1001, 12:30–32. Fernandez discloses that “speed information supplied by GPS 20 [is] compare[d] with

predetermined speed limits for certain geographical areas,” and “[i]f these limits are exceeded, an output is generated.” Ex. 1006, 2:31–35. On this record, we determine that Petitioner has shown a reasonable likelihood of success in establishing that Fernandez anticipates, or renders obvious claims 16–20.

8. Conclusion for Petitioner’s Fifth and Sixth Grounds

After considering the information presented in the Petition, we determine that Petitioner establishes a reasonable likelihood of prevailing on its challenge to at least one of claims 1–20 of the ’475 patent.

H. Alleged Obviousness over Fernandez and Treyz (Ground 7)

Petitioner additionally challenges claims 4, 11, and 18 as obvious over Fernandez and Treyz. Pet. 76–77. Patent Owner does not dispute Petitioner’s assertions at this time. *See generally* Prelim. Resp. As noted above, we determine that Petitioner has adequately established that Fernandez discloses the limitations of claims 4, 11, and 18. Nonetheless, because Fernandez does not use the term “a browser,” as recited in claims 4, 11, and 18, we address Petitioner’s alternate grounds to provide Patent Owner sufficient information to formulate a response.

1. Analysis of Ground 7

Each of claims 4, 11, and 18 recites, “the remote computing device is configured to notify the recipient about the violation committed by the vehicle by permitting the recipient to view the indication of the violation via a browser.” Ex. 1001, 10:66–11:2, 11:36–40, 12:33–36.

Petitioner asserts that to the extent Fernandez’s disclosure of “the internet” does not disclose or suggest a browser, Treyz discloses various messaging techniques including that the “driver and vehicle monitoring

operations may be made available to various parties using a web-based approach.” Pet. 50 (citing Ex. 1008, 37:34–36). In particular, Petitioner asserts that Treyz discloses that “a web browser may be used to access . . . information” regarding the monitoring operations. *Id.* at 51 (citing Ex. 1008, 37:44–47; *see also* Ex. 1004 ¶ 138). According to Petitioner’s declarant, it would have been obvious to modify Fernandez’s remote computerized station to notify users via a browser, to enable the user to “view . . . vehicle violations in real-time at any time and place convenient for the subscriber through use of any remote computer or device having access to the internet.” Ex. 1004 ¶ 186 (citing Ex. 1008, 22:20–23).

We have reviewed Petitioner’s cited evidence and explanation regarding why Treyz discloses this limitation of claims 4, 11, and 18 and find it sufficient at this stage. In particular, Treyz discloses that “results of driver and vehicle monitoring operations may be made available to various parties using a web-based approach,” including that “a web browser may be used to access this information.” Ex. 1008, 37:34–46. We also have reviewed Petitioner’s reasons to combine Fernandez with Treyz and find it sufficient at this stage. Specifically, we credit Dr. Almeroth’s un rebutted testimony that notifying users via a browser enables the user to “view . . . vehicle violations in real-time at any time and place [that is] convenient.” Ex. 1004 ¶ 186.

Based on a review of the current record at this stage of the proceeding, Petitioner has made a sufficient showing that the combination of Fernandez and Treyz discloses or suggests the subject matter of dependent claims 4, 11, and 18. On this record, we determine that Petitioner has shown a reasonable

likelihood of success in establishing that the combination of Fernandez and Treyz renders obvious claims 4, 11, and 18.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review of claims 1–20 of the '475 patent is instituted on the grounds asserted in the Petition; and

FURTHER ORDERED that 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; the trial will commence on the entry date of this decision.

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