

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

NAVBLAZER, LLC,
Patent Owner.

IPR2021-00504
Patent 9,885,782 B2

Before KEVIN F. TURNER, GARTH D. BAER,
and AARON W. MOORE, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

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

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I. INTRODUCTION

A. *Background*

Google LLC (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 2, 5–12, 14–17, and 19 of U.S. Patent No. 9,885,782 B2 (Ex. 1001, “the ’782 patent”). Paper 1 (“Pet.”). NavBlazer, LLC (“Patent Owner”) did not file a Preliminary Response.

On August 12, 2021, we instituted an *inter partes* review of all challenged claims: 1, 2, 5–12, 14–17, and 19. Paper 6 (“Decision”), 21. Patent Owner did not file a Patent Owner Response, and the parties have waived a hearing. *See* Ex. 3001.

The Board has jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 and, for the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 2, 5–12, 14–17, and 19 of the ’782 patent are unpatentable.

B. *Related Matters*

The parties identify the following related litigation: *NavBlazer, LLC v. Hyundai Motor America*, 2:20-cv-00072 (EDTX); *NavBlazer, LLC v. TomTom North America, Inc. et al.*, 6:20-cv-00112 (WDTX); *NavBlazer, LLC v. Motorola Mobility LLC*, 6:20-cv-00100 (WDTX); *NavBlazer, LLC v. LG Electronics, Inc. et al.*, 6:20-cv-00095 (WDTX); *NavBlazer, LLC v. Samsung Electronics Co., Ltd. et al.*, 6:20-cv-00089 (WDTX); *NavBlazer, LLC v. Apple Inc.*, 6:20-cv-00085 (WDTX). *See* Pet. 50; Patent Owner Mandatory Notices (Paper 5), 2–3.

Apple Inc. filed a petition seeking *inter partes* review of claims 1, 2, 7, and 8 of the '782 patent. *See* IPR2020-01254, Paper 1. That case was terminated on December 16, 2020, following a settlement. *See* IPR2020-01254, Paper 8.

Unified Patents LLC filed a petition seeking *inter partes* review of claims 1–5, 7, 8, 10–19, 21–23, and 25 of the '782 patent. *See* IPR2020-00983, Paper 1. A Final Written Decision in that case issues concurrently with this one.

C. The '782 Patent

The '782 patent states that it was becoming “more and more important for individuals to have an awareness and information pertaining to the locales in which they are driving or traveling, the destinations to which they are headed, as well as the roadways, bridges, toll booths and tunnels which they must travel or use along the way” and that “vehicle operators could greatly benefit from an apparatus and method which could provide a vehicle operator and/or occupant with information regarding the traffic and/or conditions of roadways, highways, bridges, toll booths, tunnels, parking lots, etc.” Ex. 1001, 1:41–50.

To that end, the patent describes “an apparatus and a method for providing a vehicle operator and/or occupant with information regarding traffic conditions as well as conditions of roadways, highways, bridges, toll booths and tunnels, as well as other roads and/or thoroughfares upon which a vehicle may travel, along with other destinations and/or entities of interest, to a vehicle operator or occupant.” Ex. 1001, 1:54–60. A preferred embodiment “provides video information to a vehicle operator and/or occupant” regarding road conditions “as well as other destinations and/or

entities of interest.” *Id.* at 1:62–66. “For example,” according to the patent, “a driver headed to a destination [could] utilize the . . . invention in order to view the traffic conditions on several alternate roadways or at bridges, tunnels or toll booths along the way,” and “[t]he driver [could] then utilize [the] information in order to travel the least congested route.” *Id.* at 2:20–25.

The patent describes a “vehicle computer” with a “display and user input device located on or in the vehicle dashboard or console” and a “central processing computer” that “provides control over the apparatus and . . . services the vehicle computer,” where “[t]he central processing computer and the vehicle computer communicate with one another over an appropriate or suitable wireless communication network” such as “the Internet and/or the World Wide Web and, in particular, a wireless Internet and/or World Wide Web communication network and/or system.” *Id.* at 2:26–44.

The patent describes how the apparatus “further comprises a plurality of video cameras and location computers which are associated with each of the video cameras.” *Id.* at 2:61–63. “The location computers are electronically and/or operatively connected to [their] respective video camera for providing control over the video camera,” and “[v]ideo information, which is recorded by the respective video camera, is provided to the location computer which services the respective video camera.” *Id.* at 2:63–3:1.

The vehicle computer “can access the web sites of the location computers via the Web Site associated with the central processing computer on, or over, the Internet and/or the World Wide Web.” *Id.* at 3:3–7. “In this manner, the video information recorded by each of the video cameras may

be accessed by the vehicle computer and by the central processing computer so that the vehicle operator and/or occupant can obtain the video information at the vehicle computer.” *Id.* at 3:10–14.

The patent explains that the apparatus also includes a global positioning device and a database located at the vehicle, where “[t]he database stores any pre-determined number of locations such as video camera locations.” *Id.* at 3:36–37. “After the global positioning device determines vehicle position, the position data may be cross correlated with the location data and other data available in the database so as to provide the vehicle operator and/or occupant with a selection of locations for which he or she may obtain video or other information over the Internet and/or the World Wide Web.” *Id.* at 3:53–59. “[T]he vehicle operator may view roadways, bridges, tunnels, toll booths, along the way, so as to select the route with the least traffic, congestion of traffic delays.” *Id.* at 5:13–16.

The system also allows the vehicle operator or occupant to “obtain other information pertinent to [a] selected location,” including “text information or audio information” that may “include, among other things, information regarding traffic conditions, weather conditions, forecasted traffic conditions, forecasted weather conditions, and any other useful information or news regarding the selected location which may be of interest to the vehicle operator or occupant.” *Id.* at 16:42–51.

D. The Challenged Claims

Independent claim 1, which is representative of the subject matter at issue, is reproduced below:

1. An apparatus, comprising:
a global positioning device, wherein the global positioning

device determines a location of the apparatus or a location of a vehicle;

a processing device, wherein the processing device processes information regarding the location of the apparatus or the location of the vehicle and information regarding a destination, wherein the processing device determines or identifies a travel route to the destination on or along a road, a roadway, a highway, a parkway, or an expressway;

a display device or a speaker, wherein the display device displays information regarding the travel route or the speaker provides audio information regarding the travel route;

and

a receiver, wherein the receiver receives traffic information or information regarding a traffic condition,

wherein the apparatus provides the traffic information or the information regarding a traffic condition via the display device or via the speaker.

Ex. 1001, 21:45–65.

Independent claim 15 is similar to claim 1, but further includes “a camera for obtaining a photograph, a picture, or an image, of a road, a roadway, a highway, a parkway, or an expressway, or for obtaining a photograph, a picture, or an image, of traffic on a road, a roadway, a highway, a parkway, or an expressway.”

E. Evidence Relied Upon

Petitioner relies on the following references:

Reference	Exhibit
U.S. Patent 5,504,482 (“Schreder”)	1005
U.S. Patent 5,396,429 (“Hanchett”)	1008
U.S. Patent 5,808,566 (“Behr”)	1004

U.S. Patent 6,018,697 (“Suman”)	1007
U.S. Patent 5,844,505 (“Van Ryzin”)	1009

Petitioner also relies on a Declaration of Dr. Michael S. Braasch, filed as Exhibit 1003. Patent Owner has not submitted an expert declaration.

F. Grounds of Unpatentability

This trial was instituted on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 2, 6–8, 14	103(a)	Schreder
5	103(a)	Schreder, Hanchett
9, 11	103(a)	Schreder, Behr
10, 12	103(a)	Schreder, Suman
15, 19	103(a)	Schreder, Van Ryzin
16, 17	103(a)	Schreder, Van Ryzin, Suman
1, 2, 5–8, 14	103(a)	Schreder, Hanchett
9, 11	103(a)	Schreder, Hanchett, Behr
10, 12	103(a)	Schreder, Hanchett, Suman
15, 19	103(a)	Schreder, Hanchett, Van Ryzin
16, 17	103(a)	Schreder, Hanchett, Van Ryzin, Suman

Decision 21.

II. ANALYSIS

We discuss below the level of skill in the art, claim construction, and then the patentability of the challenged claims.

A. *Level of Ordinary Skill in the Art*

The level of skill in the art is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis. *See Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966)). The level of skill in the art also informs the claim construction analysis. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 332 (2015) (explaining that claim construction seeks the meaning “a skilled artisan would ascribe” to the claim term “in the context of the specific patent claim”).

Petitioner asserts that a person of ordinary skill in the art at the time of the invention “would have been a person having at least a Bachelor’s Degree in an Engineering discipline such as Electrical or Computer Engineering, or a Bachelor’s Degree in Computer Science or equivalent degree, and at least two years of relevant experience in the research, design, development and/or testing of navigation systems, embedded systems or the equivalent, with additional education substituting for experience and *vice versa*.” Pet. 4 (citing Ex. 1003 ¶¶ 35–36). Patent Owner does not dispute Petitioner’s description.

At institution, we adopted Petitioner’s characterization of the level of skill in the art, which we found to be generally consistent with the disclosures of the ’782 patent and cited references. *See* Decision 6. As neither party has contested that choice, we maintain it. Neither party argues

that the formulation of the level of ordinary skill in the art affects the validity analysis.

B. Claim Construction

We construe claims using the claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and subsequent cases. *See* 37 C.F.R. § 42.100(b).

Petitioner asserts that, in a related litigation, “Patent Owner and certain Defendants (not party to this IPR petition) disagreed on the constructions of certain terms that are relevant to this Petition.” Pet. 7. The disputed terms were “information regarding the travel route” and “maintenance information associated with [the travel route / a second travel route].” *Id.* at 8. The primary difference in the proposed constructions appears to be that the litigation defendants would have the “information” be received from cameras or devices stationed at locations along the travel route. *See id.* In other words, Patent Owner sought a broader construction than the defendants.

Petitioner further contends, however, that the “claim construction dispute . . . does not alter resolution of this Petition because the Challenged Claims are unpatentable under each of Patent Owner’s and Defendants’ proffered constructions.” *Id.* at 9. Patent Owner has not addressed claim construction.

Though there may be a dispute about the meaning of the claims in the District Court, neither party has sought or attempted to justify any claim construction in this proceeding, and our review of the record does not reveal any terms that require an express construction. We conclude that we need

not engage in the formal construction of any claim terms to reach our decision. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (explaining that construction is needed only for terms that are in dispute, and only as necessary to resolve the controversy).

C. Obviousness

A claim is unpatentable under 35 U.S.C. § 103(a) 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 ordinary skill in the art; and (4) any secondary considerations, if in evidence.¹ *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

1. Schreder

Schreder is a United States patent directed to “various technologies and methods to provide a comprehensive vehicular route guidance, control and safety system for reducing travel time, pollution emissions, traffic accidents and road side emergency care response time.” Ex. 1005, 1:14–18.

Schreder’s first embodiment includes a “vehicle position system 22” that “transfers three-dimensional current position and time information to a

¹ Patent Owner does not present any objective evidence of nonobviousness (i.e., secondary considerations) as to any of the challenged claims.

driver information system 24 and also transfers motion information to a vehicular dynamic control system 26.” Ex. 1005, 7:29–32. A “driver information system 24 provides the computing capability for route guidance planning as adjusted by dynamic traffic flow 35 information received through a radio data system 28.” *Id.* at 7:32–35. The embodiment also includes a “display device 48” that “displays a relevant vicinity map portion of the digitized map” and “displays the planned route and current position cursor within the displayed vicinity map portion.” *Id.* at 8:18–21. The display device 48 also “could have a speaker audibly informing the driver of pending turns in advance to audibly direct the driver along a planned route.” *Id.* at 8:30–32. The system’s route planning processor 70 may “receive[] broadcasted real-time traffic flow and road incident information for the local area” and “display additional information to the driver,” including information regarding “road blockages” or “accident block[s].” *Id.* at 13:27–30.

Schreder additionally describes an “electro-optical obstacles detection system 36 for optically detecting road obstacles for head-way holding.” Ex. 1005, 7:48–50; *see id.* at Fig. 1 (optical sensor 12).

2. *Grounds 1–6*

Petitioner alleges in Grounds 1–6 that claims 1, 2, 5–12, 14–17, and 19 are unpatentable under 35 U.S.C. § 103(a) as obvious in view of Schreder or Schreder and one of more of Hanchett, Behr, Suman, and Van Ryzin. *See* Pet. 5–6. Patent Owner has not offered any patentability arguments and, for the reasons detailed below, we agree that these claims would have been obvious in view of the cited references.

a. Independent Claim 1

i. “[a]n apparatus”

Petitioner argues that Schreder discloses an apparatus because it “describes an ‘automobile navigation guidance, control and safety system’ that includes display device 48, map storage system 46, as well as ‘processors and programmed memories’ to implement the various functionalities described.” Pet. 18–19 (citing Ex. 1005, 7:3–8:59, Fig. 1).

We agree with Petitioner that Schreder discloses the subject matter of the preamble.²

ii. “a global positioning device, wherein the global positioning device determines a location of the apparatus or a location of a vehicle”

The claim next recites “a global positioning device, wherein the global positioning device determines a location of the apparatus or a location of a vehicle.”

Petitioner contends that “Schreder discloses a global positioning device in the form of a GPS receiver that can receive signals from GPS satellites, obtaining accurate position information of the vehicle,” which is “part of the RF navigation system 18.” Pet. 19 (citing Ex. 1005, 7:15–17, 12:21–32).

We agree that the cited portions of Schreder disclose a global positioning device that determines a location of the apparatus or a location of a vehicle (which in this case appear to be the same).

² Because Schreder teaches an apparatus, we need not decide whether the preamble is limiting.

- iii. *“a processing device, wherein the processing device processes information regarding the location of the apparatus or the location of the vehicle and information regarding a destination wherein the processing device determines or identifies a travel route to the destination on or along a road, a roadway, a highway, a parkway, or an expressway”*

The claim next recites “a processing device” that “processes information regarding the location of the apparatus or the location of the vehicle and information regarding a destination.”

According to Petitioner, “Schreder teaches, or at least renders obvious, identifying, with the processing device, a travel route to the destination along various types of roads.” Pet. 20. Petitioner contends that “[f]or example, Schreder teaches a ‘route planning processor 70’ that uses the location of the vehicle, a user-entered destination, digitized road map information, and dynamic traffic flow information to calculate a travel route to the destination on or along roads.” *Id.* (citing Ex. 1005, 10:4–34, 12:39–60). Petitioner further argues that “[a]t least because Schreder discloses that digitized road maps are used to calculate routes to a destination and because traffic flow and road incident information is used to route and reroute the vehicle, a [person of ordinary skill in the art] would have understood that Schreder’s route to the destination is along various types of roads.” *Id.* at 21 (citing Ex. 1003 ¶ 56).

We agree that these disclosures are sufficient to disclose a processing device that determines or identifies a travel route to a destination on or along a “road.” Because this claim element is written in the disjunctive, we need not consider the other types of travel routes recited in the claim.

- iv. *“a display device or a speaker, wherein the display device displays information regarding the travel route or the speaker provides audio information regarding the travel route”*

The claim further requires “a display device” that “displays information regarding the travel route” or a “speaker” that “provides audio information regarding the travel route.”

Petitioner points to Schreder’s “display device and . . . speaker, both of which provide information regarding the travel route.” Pet. 21 (citing Ex. 1005, 8:18–39; Ex. 1003 ¶ 57).

We agree that the cited passage is sufficient to disclose a display device and a speaker that both provide information regarding the travel route.

- v. *“a receiver, wherein the receiver receives traffic information or information regarding a traffic condition”*

Petitioner argues that “[u]sing a radio data system 28, Schreder receives ‘up-to-date traffic flow information’ that is factored into the route guidance determination calculations.” Pet. 21–22 (citing Ex. 1005, 6:47–48, 7:33–36, 8:60–9:2). Petitioner contends that “[t]he radio data system 28 includes an ‘RF processor 78 for receiving incoming RF transmissions digitally encoded with traffic flow information’ and utilizes ‘pre-set synthesizer 80’ to isolate signals on a specific AM or FM channel containing the desired traffic flow information.” *Id.* at 22 (citing Ex. 1005, 10:35–53). According to Petitioner, one skilled in the art “would have understood that radio data system 28 includes a receiver that receives traffic information over AM or FM broadcasts.” *Id.* (citing Ex. 1003 ¶ 58).

We agree with Petitioner that one of skill in the art would have understood that the Schreder apparatus necessarily includes a “receiver” for obtaining the traffic information. *See* Pet. 21–22 (citing Ex. 1003 ¶ 58).

- vi. *“wherein the apparatus provides the traffic information or the information regarding a traffic condition via the display device or via the speaker”*

Petitioner argues that “Schreder discloses that traffic flow information received via the radio data system can be displayed on the screen and provided via synthesized voice messages.” Pet. 22 (citing Ex. 1005, 4:55–57, 13:14–36; Ex. 1003 ¶ 59).

We agree that Schreder discloses providing traffic information or information regarding a traffic condition via the driver display or synthesized voice messages.

vii. *Conclusion Regarding Claim 1*

For the reasons detailed above, we agree with Petitioner’s analysis regarding Schreder, which Patent Owner does not contest. We thus conclude that Petitioner has shown claim to be 1 unpatentable in view of Schreder.

b. *Independent Claim 15*

Independent claim 15 is similar to claim 1 but adds (1) a camera and (2) different types of information.

The claim recites “a camera for obtaining a photograph, a picture, or an image, of a road, a roadway, a highway, a parkway, or an expressway, or for obtaining a photograph, a picture, or an image, of traffic on a road, a roadway, a highway, a parkway, or an expressway.” In other words, the

claim requires a camera for obtaining an image³ of a travel route⁴ or traffic on a travel route.

Petitioner argues that Schreder “discloses ‘an electro-optical obstacles . . . detection system 36 for optically detecting road obstacles . . . or obstructions’ on the roadway and/or ‘to detect other vehicles on the same road or to detect road lane positioning.’” Pet. 41 (citing Ex. 1005, 7:48–52, 7:57–59) (second alteration in original).

Petitioner also argues that “to the extent Schreder does not also expressly disclose a camera . . . , this would have been obvious in view of Van Ryzin,” which has “a ‘wide angle CCD camera 20’ [that is] ‘mounted on an appropriate location (either interior or exterior) of an automobile and [that] is capable of imaging areas in front of and to the side of the automobile.’” Pet. 41 (citing Ex. 1009, 2:45–49, 3:9–12). Petitioner asserts that the skilled artisan “would have understood, or would have found it obvious, that adding the capabilities disclosed in Van Ryzin of using a camera to recognize and alert the driver to local conditions (including road construction, service areas, and speed limits) would have been useful in Schreder’s navigation system.” *Id.* at 42–43 (citing Ex. 1009, 3:13–23, 4:18–22, 4:34–46, 4:47–63, 5:2–33; Ex. 1003 ¶ 103).

Patent Owner has not argued that claim 15 is patentable over Schreder or Schreder and Van Ryzin due to the camera limitation, and we agree with

³ The Specification does not distinguish between “photograph,” “picture,” and “image,” and we see no patentable difference. We use “image” as shorthand for all of them.

⁴ The Specification does not distinguish between “road,” “roadway,” “highway,” “parkway,” and “expressway,” and we see no patentable difference. We use “travel route” as shorthand for all of them.

Petitioner it would have been obvious to add to Schreder the camera disclosed in Van Ryzin, as argued by Petitioner.

Because we agree with Petitioner's analysis for the camera limitation, and because the narrower disclosure of information discussed in connection with claim 1 is sufficient to show the broader information recited in claim 15, we conclude that Petitioner has shown, by a preponderance of the evidence, that independent claim 15 would have been obvious in view of Schreder or Schreder and Van Ryzin.

c. Claim 2

Claim 2 recites that “the apparatus detects a departure from the travel route, and further wherein the apparatus determines or identifies a second travel route to the destination, and further wherein the apparatus provides information regarding the second travel route.”

Petitioner argues that “Schreder discloses a system that determines whether the vehicle has departed from [the] planned route, dynamically reroutes the vehicle when necessary, and provides both visual and audible feedback to keep the user apprised of such rerouting.” Pet. 23 (citing Ex. 1005, 13:38–44; Ex. 1003 ¶ 60).

We agree that Schreder's apparatus detects a departure from the travel route, determines a second travel route to the destination, and provides information regarding the second travel route. We thus conclude that Petitioner has shown, by a preponderance of the evidence, that claim 2 would have been obvious in view of Schreder.

d. Claim 5

Claim 5 recites that “the apparatus provides a video preview of the travel route or a picture or image along the travel route or provides a video preview of a second travel route to the destination or a picture or image along the second travel route.”

Petitioner argues that “[t]o the extent . . . Schreder does not . . . expressly disclose a video preview of the travel route or a picture or image along the travel route, this would have been obvious in view of Hanchett.” Pet. 28. Specifically, Petitioner argues that “Hanchett . . . discloses a network of cameras to provide ‘a sequential presentation of video images that simulates traveling the roadway 22 in the same direction as the mobile user 18 is traveling,’ which ‘might be likened to traveling the roadway at great speed to preview the traffic conditions.’” Pet. 28 (citing Ex. 1008, 5:54–68) (emphasis omitted).

Petitioner argues that the skilled artisan “would recognize the usefulness of leveraging [Hanchett’s] existing traffic radio infrastructure . . . with Schreder’s ‘radio data system 28’ and ‘RF processor 78’ that provides users with information regarding, for example, ‘traffic flow information’ and ‘road blockages,’ to also provide users with video traffic information, including video previews of a particular route.” Pet. 29 (citing Ex. 1003 ¶ 72). Petitioner also argues that “[a]s Hanchett recognized, a system that provided video traffic information would allow drivers to view ‘current and accurate information concerning traffic conditions’ via video and ‘evaluate the information in light of his or her particular situation,’” and that “‘previewing videos of particular roadways would allow a user ‘to make route choices.’” *Id.* (citing Ex. 1008, 2:34–57, 2:15–22).

We agree that the combination of Schreder and Hanchett includes the elements of claim 5, and that one of skill in the art would have been motivated to make the combination. We conclude that Petitioner has shown, by a preponderance of the evidence, that claim 5 would have been obvious in view of Schreder and Hanchett.

e. Claim 6

Claim 6 recites that “the apparatus receives information regarding a traffic forecast associated with the travel route or a traffic forecast associated with a second travel route to the destination, and further wherein the apparatus provides the information regarding the traffic forecast associated with the travel route or the traffic forecast associated with the second travel route via the display device or the speaker.”

Petitioner argues that Schreder “discloses a navigation guidance system that includes a ‘radio data system [that] is used to receive up-to-date traffic flow information’ and that may also include an AM/FM radio for ‘AM/FM radio channel selection, local area radio data system channel selection, and presetting 911 emergency call channel information.’” Pet. 24 (citing Ex. 1005, 6:47–53, 11:1–8). Petitioner further argues that the skilled artisan “would have understood that a ‘radio data system,’ as disclosed by Schreder, was used to receive ‘traffic forecast’ information” and “would have also understood that the AM/FM radio . . . would have also received traffic ‘forecast’ information, such as a news report informing a driver to ‘expect delays’ on a certain travel route, for example because of traffic conditions, weather conditions, a traffic accident, etc.” *Id.* at 24–25 (citing Ex. 1005, 6:47–53, 11:1–8; Ex. 1010, 1:12–18; Ex. 1003 ¶¶ 61–63).

We agree that Schreder's apparatus receives information regarding a traffic forecast and provides the information via the display device or the speaker. We conclude that Petitioner has shown, by a preponderance of the evidence, that claim 6 would have been obvious in view of Schreder.

f. Claim 7

Claim 7 recites that "the apparatus receives maintenance information associated with the travel route or maintenance information associated with a second travel route to the destination, and further wherein the apparatus provides the maintenance information associated with the travel route or the maintenance information associated with the second travel route via the display device or the speaker."

Petitioner argues that "Schreder teaches an apparatus that receives maintenance information associated with the travel route and relays the information via both the display and speaker" in that "Schreder's 'radio data system is used to receive up-to-date traffic flow information,' which can include 'road construction, detours, congestion levels, traffic flow rates, hazardous material spills, parking capabilities, weather conditions, among other codes.'" Pet. 25 (citing Ex. 1005, 6:47–53).

We agree that Schreder's apparatus receives maintenance information and provides the information via the display device or the speaker, and conclude that Petitioner has shown, by a preponderance of the evidence, that claim 7 would have been obvious in view of Schreder.

g. Claim 8

Claim 8 recites that "the apparatus receives information regarding a weather condition, weather information, a forecasted weather condition, or a

weather forecast, and further wherein the apparatus provides the information regarding the weather condition, the weather information, the forecasted weather condition, or the weather forecast via the display device or the speaker.”

Petitioner argues that Schreder’s “radio data system is used to receive up-to-date traffic flow information,” which can include “road construction, detours, congestion levels, traffic flow rates, hazardous material spills, parking capabilities, weather conditions, among other codes.” Pet. 26 (citing Ex. 1005, 6:47–53) (emphasis omitted). Petitioner further argues that one of skill in the art “would have understood that Schreder’s system would have processed, displayed, announced, and/or otherwise provided all traffic flow messages pertinent to the user’s route, including weather conditions. *Id.* at 26 (citing Ex. 1003 ¶¶ 66–67).

We agree that Schreder’s apparatus receives weather information and provides the information via the display device or the speaker. We conclude that Petitioner has shown, by a preponderance of the evidence, that claim 8 would have been obvious in view of Schreder.

h. Claim 9

Claim 9 recites that “the apparatus receives information regarding a news report, and further wherein the apparatus provides the information regarding the news report via the display device or the speaker.”

Petitioner argues that “[t]o the extent . . . Schreder may not expressly disclose that the information received over the radio data system may include ‘information regarding a news report,’ this would have been obvious in view of Behr.” Pet. 30. Specifically, Petitioner argues that “Behr discloses ‘an apparatus and method for providing to a mobile unit route

guidance and tracking information and other information which has been calculated and/or stored at a base unit in response to a query from the mobile unit” and that “the base unit may include a ‘third-party data integrator 80 [that] provides additional data such as on-line yellow pages information or news, weather, and/or traffic advisory information for responding to queries from a mobile unit.’” *Id.* 30 (citing Ex. 1004, 1:23–26, 11:18–21).

Petitioner further argues that one of skill in the art “would have easily recognized that a news report, which for example may include news of traffic conditions, weather forecasts, traffic accidents, *etc.*, is information that could affect a planned travel route and that it would therefore have been beneficial to convey this information to a driver over Schreder’s radio data system.” *Id.* at 31.

We agree that the combination of Schreder and Behr includes the elements of claim 9, and that one of skill in the art would have been motivated to make the combination. We thus conclude that Petitioner has shown, by a preponderance of the evidence, that claim 9 would have been obvious in view of Schreder and Behr.

i. Claims 10 and 16

Claims 10 and 16 add to claims 1 and 15, respectively, that “the display device is located or mounted on, or adjacent to, a dashboard of the vehicle or a console of the vehicle.”

Petitioner argues that “to the extent that Schreder does not expressly disclose the positioning of the display device within the vehicle and/or as relating to the dashboard or console of the vehicle, this would have been obvious in view of Suman.” Pet. 35 (citing Ex. 1003 ¶ 86). Petitioner argues that Suman’s “display 170 [is] mounted in an overhead console 150”

and that the skilled artisan “would have understood, or would have found it obvious, that adding the capabilities disclosed in Suman of locating or mounting the display on the overhead console to Schreder would have been useful in (1) increasing the visibility of the display and (2) minimizing the distractions to the driver as taught in Suman.” *Id.* at 36–37 (citing Ex. 1007, 17:28–34, Fig. 9; Ex. 1003 ¶ 89) (emphasis omitted).

We agree that the combination of Schreder and Suman includes the elements of claims 10 and 16, and that one of skill in the art would have been motivated to make the combination. We conclude that Petitioner has shown, by a preponderance of the evidence, that claims 10 and 16 would have been obvious in view of Schreder and Suman, and Schreder, Suman and Van Ryzin, respectively.

j. Claim 11

Claim 11 recites that “the apparatus receives travel route information transmitted from a computer, a transmitter, or a device, located remote from the apparatus, and further wherein the apparatus provides the travel route information via the display device or the speaker, or wherein the apparatus receives information regarding a traffic condition, and further wherein the apparatus provides the information regarding a traffic condition via the display device or the speaker.”

Petitioner acknowledges that “[t]he navigation system in Schreder . . . is located within the vehicle” but contends that “Behr discloses ‘an apparatus and method for providing to a mobile unit route guidance and tracking information and other information which has been calculated and/or stored at a base unit in response to a query from the mobile unit.’” Pet. 32 (citing Ex. 1004, 10:4–34). Petitioner argues that one of skill in the art “would have

been motivated to utilize a centralized map database and route calculator, such as included in the base unit of Behr, with the vehicle navigation system of Schreder, for example to enhance the data storage and processing capabilities of the navigation system.” *Id.* at 33.

We agree that the combination of Schreder and Behr includes the elements of claim 11, and that one of skill in the art would have been motivated to make the combination. We conclude that Petitioner has shown, by a preponderance of the evidence, that claim 11 would have been obvious in view of Schreder and Behr.

k. Claims 12 and 17

Claims 12 and 17 add to claims 1 and 15 “a microphone and voice recognition software, wherein the microphone and the voice recognition software provides or facilitates a hands-free mode of apparatus operation.”

Petitioner argues that “to the extent that Schreder does not expressly disclose . . . a ‘microphone’ and ‘voice recognition software’ for providing ‘a hands-free mode of apparatus operation,’ this would have been obvious in view of Suman.” Pet. 39. Specifically, Petitioner argues that “Suman teaches a navigation system that includes both a ‘microphone 82’ and a ‘voice recognition unit (VRU) 79 which is coupled to audio multiplexer 74 for recognition of voice commands.” *Id.* at 39 (citing Ex. 1007, 11:14–20).

Petitioner further argues that one of skill in the art “would have understood, or would have found it obvious, that adding voice recognition and hands-free voice commands would have been useful in controlling the navigation system while minimizing the distractions to the driver as taught in Suman.” Pet. 40 (citing Ex. 1007, 16:34–46; Ex. 1003 ¶ 95).

We agree that the combination of Schreder and Suman includes the elements of claims 12 and 17, and that one of skill in the art would have been motivated to make the combination. We conclude that Petitioner has shown, by a preponderance of the evidence, that claims 12 at 17 would have been obvious in view of Schreder and Suman, and Schreder, Suman, and Van Ryzin, respectively.

l. Claims 14 and 19

Claims 14 and 19 add to claims 1 and 15 that “the apparatus automatically detects a departure from the travel route, and further wherein the apparatus identifies a second travel route to the destination in response to the detected departure from the first travel route, wherein the apparatus provides information regarding the second travel route.”

Petitioner argues that “Schreder ‘automatically’ detects a departure from the travel route” and that “[t]he remainder of Claim 14 is substantively identical to Claim 2.” Pet. 27 (citing Ex. 1005, 13:38–44; Ex. 1003 ¶ 69).

We agree that the Schreder’s apparatus automatically detects a departure from the travel route, identifies a second travel route, and provides information regarding the second travel route. We thus conclude that Petitioner has shown, by a preponderance of the evidence, that claims 14 and 19 would have been obvious in view of Schreder or Schreder and Van Ryzin.

m. Conclusion on Grounds 1–6

For the reasons provided above, we find that Petitioner has shown how the limitations of claims 1, 2, 5–12, 14–17, and 19 are taught or suggested in Schreder or in Schreder and one of more of Hanchett, Behr,

Suman, and Van Ryzin and provided sufficient motivations to combine. We conclude, therefore, that Petitioner has shown, by a preponderance of the evidence, that claims 1, 2, 5–12, 14–17, and 19 would have been unpatentable for obviousness.

3. *Grounds 7–11*

Grounds 7–11 address “[u]npatentability under the claim constructions proposed by Defendants in district court litigation.” Pet. 18. Essentially, Petitioner adds Hanchett to address a construction of the claims that would require the “information” to be received from cameras along the travel route. *See id.* 46.

Given that neither party has proposed those construction in this case, much less supported them, and that we have not adopted them, and we do not consider these grounds.

III. CONCLUSION

Claims 1, 2, 5–12, 14–17, and 19 of the '782 patent have been shown to be unpatentable. The results are summarized below.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 2, 6–8, 14	103(a)	Schreder	1, 2, 6–8, 14	
5		Schreder, Hanchett	5	
9, 11		Schreder, Behr	9, 11	
10, 12	103(a)	Schreder, Suman	10, 12	
15, 19	103(a)	Schreder, Van Ryzin	15, 19	
16, 17	103(a)	Schreder, Van Ryzin, Suman	16, 17	
1, 2, 5–8, 14	103(a)	Schreder, Hanchett [†]		
9, 11	103(a)	Schreder, Hanchett, Behr [†]		
10, 12	103(a)	Schreder, Hanchett, Suman [†]		
15, 19	103(a)	Schreder, Hanchett, Van Ryzin [†]		
16, 17	103(a)	Schreder, Hanchett, Van Ryzin, Suman [†]		
Overall Outcome			1, 2, 5–12, 14–17, and 19	

[†] For the reasons identified above in Section II.C.3, we do not reach these grounds.

IV. ORDER

For the reasons given, it is:

ORDERED that claims 1, 2, 5–12, 14–17, and 19 of U.S. Patent 9,885,782 B2 have been shown to be unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, the parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.⁵

⁵ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

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