

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS,
Petitioner

v.

NAVBLAZER, LLC,
Patent Owner.

IPR2020-00983
Patent 9,885,782 B2

Before KEVIN F. TURNER, JOHN A. HUDALLA,
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*

Unified Patents, LLC (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–5, 7, 8, 10–19, 21–23, and 25 of U.S. Patent No. 9,885,782 B2 (Ex. 1001, “the ’782 patent”). Paper 1 (“Pet.”). NavBlazer, LLC (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

On December 16, 2020, we instituted an *inter partes* review of all challenged claims: 1–5, 7, 8, 10–19, 21–23, and 25. Paper 11 (“Decision”), 19. Patent Owner did not file a Patent Owner Response, and the parties waived a hearing. *See* Paper 14, 2.

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 1–5, 7, 8, 10–19, 21–23, and 25 of the ’782 patent are unpatentable.

B. *Related Matters*

The parties identify the following related matters: *NavBlazer, LLC v. Hyundai Motor America*, No. 2-20-cv-00072 (E.D. Tex. Mar. 4, 2020); *NavBlazer, LLC v. TomTom North America, Inc. et al.*, No. 6-20-cv-00112 (W.D. Tex. Feb. 14, 2020); *NavBlazer, LLC v. Motorola Mobility LLC*, No. 6-20-cv-00100 (W.D. Tex. Feb. 10, 2020); *NavBlazer, LLC v. LG Electronics, Inc. et al.*, No. 6-20-cv-00095 (W.D. Tex. Feb. 7, 2020); *NavBlazer, LLC v. Samsung Electronics Co., Ltd. et al.*, No. 6-20-cv-00089

(W.D. Tex. Feb. 5, 2020); and *NavBlazer, LLC v. Apple Inc.*, No. 6-20-cv-00085 (W.D. Tex. Feb. 4, 2020). *See* Pet. 82–83; Prelim. Resp. 3–4.

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 9.

Google LLC filed a petition seeking *inter partes* review of claims 1, 2, 5–12, 14–17, and 19 of the '782 patent. *See* IPR2021-00504, 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.” Ex. 1001, 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.” Ex. 1001, 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.” Ex. 1001, 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.” Ex. 1001, 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.” Ex. 1001, 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.” Independent claim 21 is similar to claim 15, but includes limitations specifically directed to the receipt of video information.

E. Evidence Relied Upon

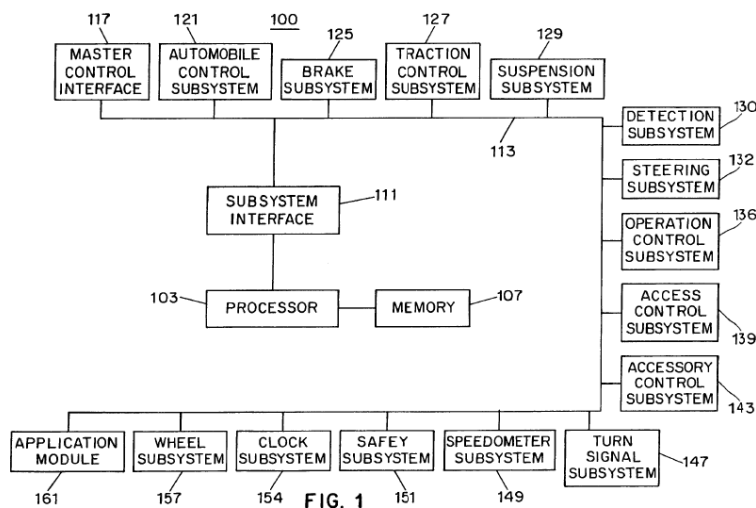
Petitioner relies on the following references:

Reference	Exhibit
U.S. Patent 6,275,231 (“Obradovich”)	1006
U.S. Patent 5,982,298 (“Lappenbusch”)	1009
U.S. Patent 5,396,429 (“Hanchett”)	1007
U.S. Patent 6,018,697 (“Morimoto”)	1008
U.S. Patent 5,648,768 (“Bouve”)	1010

Petitioner also relies on a Declaration of Scott Andrews, filed as Exhibit 1004. Patent Owner has not submitted an expert declaration.

1. Obradovich

Obradovich describes a “control and management system 100 for use in an automobile.” Ex. 1006, 3:60–62. Figure 1, which depicts the overall system, is reproduced below:

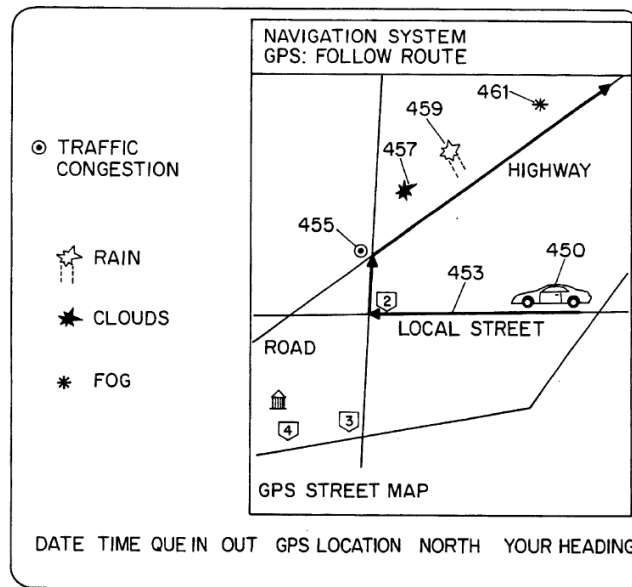


Obradovich’s Figure 1 is “a block diagram of a control and management system for use in an automobile.” Ex. 1006, 2:56–57.

The system includes processor 103 that is connected to non-volatile memory 107 and a subsystem interface 111. *See id.* at 3:63–65. Among the subsystems that may connect to the subsystem interface are navigation system 329, weather system 332, and traffic system 336. *See id.* at 6:41–42, Fig. 3.

The navigation system 329 uses GPS to identify the automobile's location and provide navigation instructions, and the weather system 332 and traffic system 336 provide the user with weather and traffic information, obtained from online sources, for a travel route. *See Ex. 1006*, 1:60–67, 4:17–26, 6:42–46, 6:50–65, 7:23–26, 8:13–21.

Figure 6 of Obradovich shows how the display may be used for navigation and to provide weather and traffic information:



Obradovich's Figure 6 "illustrates a navigation screen on the display including weather and traffic indicators." Ex. 1006, 3:1–2.

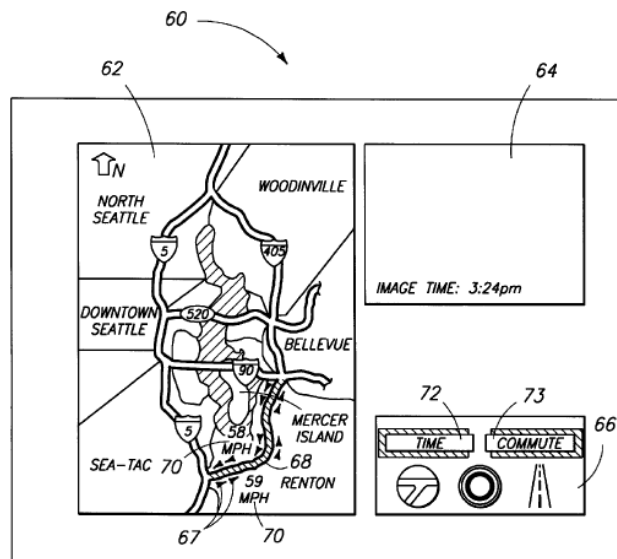
As shown above, "indicator 450 marks the current position of the vehicle," "[t]he suggested route (shown in boldface) by navigation system 329 is numerically denoted 453," "[t]raffic indicator 455 is provided

by system 336 to indicate where traffic congestion is on route 453,” and “[w]eather indicators 457, 459 and 461 are provided by system 332 to indicate the cloudy, rainy and foggy conditions, respectively, at different points along route 453.” Ex. 1006, 7:13–20.

2. *Lappenbusch*

Lappenbusch “relates to public highway monitoring systems and to systems that display the data and information available from such monitoring systems.” Ex. 1009, 1:6–8.

Petitioner cites Lappenbusch for its disclosures relating to “obtain[ing] video traffic information from remote cameras placed along the road or highway of interest, [and] transmitting video traffic information from the remote cameras to client devices via the Internet.” Pet. 37 (citing Ex. 1009, 1:19–35, 3:31–40, 4:46–51). This is depicted in Lappenbusch’s Figure 4, shown below:



Lappenbusch’s Figure 4 “shows examples of a user interface in accordance with the invention.” Ex. 1009, 3:24–25.

This depiction of a user interface includes “[a] road image area 64 [that] occupies the upper right portion of the user interface,” where “[t]he road image area changes as the user highlights or selects different road segments, to show recent still images or short video clips of any currently selected road segment.” Ex. 1009, 6:1–5. “The images are obtained from server computer 38” and “[g]enerally . . . come from cameras that coincide with sub-segments of the particular segment that the user has selected.” *Id.* at 6:5–8.

3. *Morimoto*

Morimoto is directed to a navigation system for a vehicle. *See* Ex. 1008, 1:5–6. In pertinent part, it describes determining whether the vehicle has gone off the current route and, if so, calculating and then displaying a new route. *See id.* at 12:33–40 (“If the automatic re-search switch is ON, re-search processing is automatically performed (S52), and the new route is displayed (S53).”).

4. *Bouve*

Bouve “relates to electronic travel routing, and more particularly to a system and method for identifying and presenting information of interest to a traveler along a travel route.” Ex. 1010, 1:7–9. Among the types of information that Bouve describes presenting to the traveler is “status type information on . . . road construction and/or traffic detours, etc.” *Id.* at 3:43–46.

F. Grounds of Unpatentability

This trial was instituted on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 7, 8, 10–12, 15–17	103(a)	Obradovich
1, 3–5, 7, 8, 10–13, 15–18, 21, 22, 25	103(a)	Obradovich, Lappenbusch
1, 3–5, 7, 8, 10–13, 15–18, 21, 22, 25	103(a)	Obradovich, Hanchett
2, 14, 19	103(a)	Obradovich, Morimoto
2, 14, 19, 23	103(a)	Obradovich, Lappenbusch, Morimoto
2, 14, 19, 23	103(a)	Obradovich, Hanchett, Morimoto
7	103(a)	Obradovich, Bouve
7	103(a)	Obradovich, Lappenbusch, Bouve
7	103(a)	Obradovich, Hanchett, Bouve

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.*, 135 S. Ct. 831, 841 (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 (“POSITA”) at the time of the invention “would have had a Bachelor’s of Science in electrical engineering or a related subject and two or more years of experience working with navigation and communication systems.” Pet. 9 (citing Ex. 1004 ¶¶ 23–24). 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 11–12. 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 patentability 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 the challenged claims “do not require express construction, or alternatively, only require construction to the extent necessary to determine whether the prior art teaches the claims.” Pet. 9. Patent Owner has not sought any express claim constructions.

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. Ground 1: Obradovich

Petitioner alleges in Ground 1 that claims 1, 7, 8, 10–12, and 15–17 are unpatentable under 35 U.S.C. § 103(a) as obvious in view of Obradovich. 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 Obradovich.

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

a. Independent Claim 1

i. “[a]n apparatus”

Claim 1 is directed to “[a]n apparatus.” Petitioner contends that Obradovich discloses an apparatus, in its “control and management system 100 for use in an automobile.” Pet. 15 (quoting Ex. 1006, 3:54–4:16, citing Figs. 1, 2). We agree that the cited disclosure identifies an apparatus.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 argues that “Obradovich’s system 100 has automobile control subsystem 121 with navigation system 329,” that the navigation system “receives signals from a constellation of satellites which is part of the global positioning system (GPS),” and that “[i]n response to these signals, system 329 pinpoints the automobile’s location in latitude and longitude.” Pet. 16 (citing Ex. 1001, 1:60–67, 6:41–7:11, 6:42–46).

We agree that the cited portions of Obradovich 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 Obradovich 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”*

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.”

Petitioner contends that Obradovich discloses this claim element in its processor 103, which identifies the location of the vehicle and plans routes. *See* Pet. 16–20 (citing Ex. 1006, 3:63–4:6, 6:50–65, 7:5–12, Figs. 1, 6); Ex. 1004 ¶¶ 47–50.

We agree that Obradovich describes a processing device that processes information regarding the location of the apparatus or vehicle and information regarding a destination, such as when planning and displaying a route like that shown in Figure 6. *See* Ex. 1006, 6:50–65.

- iv. *“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 requires that 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.”

Petitioner cites Obradovich’s teaching that “[a]fter the user enters the destination, the processor determines a travel route, via navigation system 329, ‘[u]sing stored map information . . . [to] provide[] on display 205 a

suggested route leading to the destination.” Pet. 21 (quoting Ex. 1006, 6:50–60, also citing *id.* at 6:60–65, 7:5–23).

We agree that this disclosure is sufficient to disclose a processing device that determines or identifies a travel route to a destination on or along a “highway,” as explicitly shown in Obradovich’s Figure 6. Because this claim element is written in the disjunctive, we need not consider the other types of roads recited in the claim.

- v. *“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 contends that Obradovich’s interface has display 205 that “display[s] information regarding the travel route, such as suggested route 453 providing a visual rendering of the route and indicator 450 marking the current position of the vehicle.” Pet. 23 (citing Ex. 1006, 4:17–20, 4:26–29, 7:12–15, Fig. 2). Petitioner also contends that Obradovich has an audio system that “is capable of verbally and visually directing the user to the destination.” Pet. 24 (citing Ex. 1006, 20:12–21, 6:63–65).

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

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

Petitioner contends that Obradovich’s traffic system uses a cellular or wireless connection to “obtain[] computerized traffic information” and that the weather system “deriv[es] weather conditions from computer files obtained from an online service.” Pet. 25 (quoting and citing Ex. 1006, 7:23–25, 7:33–40, 8:13–16, 8:22–30). Petitioner further contends that one of ordinary skill in the art “would have understood that the Obradovich apparatus included a receiver to receive the computerized traffic and weather information from the online services.” *Id.* (citing Ex. 1004 ¶¶ 56–57).

We agree with Petitioner that one of skill in the art would have understood that the Obradovich apparatus necessarily includes a “receiver” for obtaining the computerized traffic and weather information from the online services through a cellular or wireless connection. *See* Pet. 25 (citing Ex. 1004 ¶¶ 56–57).

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

Petitioner contends that “Obradovich’s weather and traffic systems “jointly provide[] on display 205 updates regarding traffic congestion, weather conditions, hazards, highway warnings along the route suggested by system 329.” Pet. 27 (quoting Ex. 1006, 7:5–20, citing Figs. 6, 7).

We agree that, as shown in Figure 6, for example, Obradovich discloses providing traffic information or information regarding a traffic condition via the display device.

viii. Conclusion Regarding Claim 1

For the reasons detailed above, we agree with Petitioner’s analysis regarding Obradovich. We thus conclude that Petitioner has shown claim to be 1 unpatentable as obvious in view of Obradovich.

b. Independent Claim 15

As noted above, independent claim 15 is similar to claim 1 but adds (1) a camera and (2) different types of information.

Camera: Claim 15 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. Patent Owner has not argued that claim 15 is patentable over Obradovich due to the camera limitation, and we agree with Petitioner that the reference discloses this feature in its description of “cameras [to] monitor different segments of the road ahead and feed images to on-board computers” and “run[ning] video files on weather and traffic downloaded from an external information source such as the internet.” Ex. 1006, 1:32–35, 19:54–62.

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

Other Information: Claim 15 recites that the receiver receives “traffic information, weather information, or news information,” instead of just “traffic information,” and recites the provision of one or more of the three types of information by the display or the speaker. Because the additional types of information are recited along with the traffic information in the disjunctive, the traffic information we have already found in Obradovich is alone sufficient to satisfy this claim limitation.

We thus agree, for the reasons detailed by Petitioner, and as discussed above, that Petitioner has shown that independent claim 15 would have been obvious in view of Obradovich.

c. 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 “Obradovich’s system provides ‘on display 205 updates regarding . . . hazards [and] highway warnings along the route suggested by system 329.’” Pet. 30 (citing Ex. 1006, 7:5–11, 22:40–50). Petitioner further argues that “[t]o the extent Obradovich does not explicitly disclose receiving and providing maintenance information, a POSITA would be motivated to do so given Obradovich’s suggestion to receive and provide hazard information, Obradovich’s stated concerns with enabling the user to avoid foreseeable hazards and increase safety, and a POSITA’s

understanding that road construction presents a hazard.” Pet. 31 (citing Ex. 1006, 7:5–11, 8:21–34, 8:40–43, 22:40–50; Ex. 1004 ¶ 69.)

We agree that the cited disclosures regarding “hazards” and “highway warnings” are sufficient to have disclosed to one of skill in the art “maintenance information” or that, in, the alternative, it would have been obvious to provide such information, for the reasons articulated in Obradovich regarding the avoidance of hazards and increasing safety.

d. Claim 8

Claim 8 recites that “the apparatus receives information regarding a weather condition, weather information, a forecasted weather condition, or a weather forecast,^[5] and further wherein the apparatus provides the weather information via the display device or the speaker.”

Petitioner argues that Obradovich discloses, for example, “weather indicators 457, 459 and 461,” as shown in Figure 6. *See* Pet. 32–33. We agree that the cited disclosures are sufficient to disclose to one of skill in the art the receipt and provision of weather information.

e. Claims 10 and 16

Claims 10 and 16 recite 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 “Obradovich discloses that ‘display 205 is a liquid crystal display (LCD) located on a dashboard of the automobile.’” Pet. 33–34 (citing Ex. 1006, 4:27–28; Ex. 1004 ¶ 73). We agree that the

⁵ The Specification does not distinguish between “a weather condition,” “weather information,” “a forecasted weather condition,” or “a weather forecast,” and we see no patentable difference among them. We use “weather information” as shorthand for all of them.

cited disclosures are sufficient to disclose a display device mounted on or adjacent to a dashboard.

f. 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 argues that, in Obradovich, “weather and traffic information for points along the route are each transmitted from a remote computer, transmitter, or device, i.e., from ‘online service[s] through a cellular or wireless connection’” and that “[w]eather information . . . is transmitted by remote devices such as the United States satellite system.” Pet. 34 (citing Ex. 1006, 7:15–40, 8:5–16; Ex. 1004 ¶¶ 77–78).

We agree that the cited disclosures are sufficient to disclose receipt of travel route information from a remote device and provision the travel route information via the display device, as well as receipt and provision of information regarding a traffic condition.

g. Claims 12 and 17

Claims 12 and 17 recite “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 “Obradovich discloses that the user can operate the navigation system through voice commands” and that one of skill in the art “would have recognized a microphone as an obvious choice for an audio input at least based on the ubiquitous nature of using microphones as audio inputs.” Pet. 36 (citing Ex. 1006, 6:50–60; Ex. 1004 ¶¶ 81–82).

We agree that the cited disclosures are sufficient to disclose to one of skill in the art a microphone and software that provides for hands-free operation.

h. Conclusion on Ground 1

For the reasons provided above, we find that Petitioner has shown how the limitations of claims 1, 7, 8, 10–12, and 15–17 would have been obvious in view of Obradovich. We conclude, therefore, that Petitioner has shown, by a preponderance of the evidence, that claims 1, 7, 8, 10–12, and 15–17 would have been unpatentable over Obradovich.

2. Ground 2: Obradovich and Lappenbusch

Petitioner alleges in Ground 2 that claims 1, 3–5, 7, 8, 10–13, 15–18, 21, 22, and 25 are unpatentable as obvious in view of Obradovich and Lappenbusch.

Specifically, Petitioner argues that “[t]o the extent Patent Owner argues [Obradovich] does not provide extensive detail on how the video is obtained by cameras and made accessible via the Internet, . . . a POSITA would [have been] motivated to look to Lappenbusch for those details. Pet. 39 (citing Ex. 1004 ¶¶ 87–90). Patent Owner, however, has not argued that Obradovich does not provide sufficient detail, so we need not consider Lappenbusch for claims 1, 7–8, 10–12, and 15–17, which we have already

found unpatentable over Obradovich alone, and, as such, these claims would be unpatentable over Obradovich and Lappenbusch for the reasons already articulated above. However, claims 3–5, 13, 18, 21, 22, and 25 were not included in Ground 1, so we consider these in connection with this Ground. We also include independent claim 15, because it corresponds to claim 21.

a. Independent Claim 15

As explained above, we find that Obradovich discloses the limitations of claim 15, including the camera. *See* Section II.C.1.b. We also conclude that, even if Obradovich did not disclose a camera for obtaining an image of a roadway, it would have been obvious to add that feature in view of Lappenbusch’s teachings regarding the use of “an interactive roadmap” that allows a user to select segments and then provides images from video cameras located along the route to see images or short video clips of the traffic along the selected route.” Pet. 37–40; *see* Ex. 1009, 2:45–64. We find that Petitioner has provided a sufficient motivation to combine these complementary disclosures. *See* Pet. 38–40.

Patent Owner does not argue that Obradovich and Lappenbusch do not disclose the subject matter of claim 15, and we conclude that Petitioner has shown, by a preponderance of the evidence, that claim 15 would have been obvious in view of these references.

b. Independent Claim 21

Independent claim 21 is similar to claim 15 but, in place of the receiver and wherein limitations in claim 15, it recites that “the apparatus processes a request to provide video information obtained at a selected location,” “receives the video information from a computer or

communication device associated with the selected location,” and “provides the video information via the display device or transmits the video information to a communication device or a computer.”

Petitioner argues that “it would have been an obvious to modify Obradovich to provide video information at a selected location based on the teachings in Obradovich to provide video information, and the suggestions and motivations in Obradovich provide the user with useful information about the route (i.e., representing selected locations).” Pet. 45. Petitioner also argues that “it would have been obvious for the user to select the location the videos of traffic because providing videos of weather and traffic information for just any location (e.g., provided by the system or selected based on non-location criteria) would be of little use to drivers.” Pet. 46 (citing Ex. 1004 ¶ 106).

Patent Owner does not argue that Obradovich does not disclose the subject matter of claim 21 or argue that it would not have been obvious to use a selected location, and we find that Petitioner has shown, by a preponderance of the evidence, that claim 21 would have been obvious in view of Obradovich and Lappenbusch.

c. Claim 3

Claim 3 adds to claim 1 that “the apparatus receives video information regarding the travel route or video information regarding a second travel route to the destination, and further wherein the apparatus provides the video information regarding the travel route or the video information regarding the second travel route.”

Petitioner argues that “[t]o the extent Obradovich does not explicitly disclose that the video information received and provided to the user is

‘regarding the travel route,’ Lappenbusch does.” Pet. 49 (citing Ex. 1009, 5:61–6:8, Fig. 4). Patent Owner does not argue otherwise.

Patent Owner does not argue that Obradovich and Lappenbusch do not disclose the subject matter of claim 3, and we conclude that Petitioner has shown, by a preponderance of the evidence, that claim 15 would have been obvious in view of these references.

d. Claim 4

Claim 4 adds to claim 1 that “the video information regarding the travel route or the video information regarding a second travel route is obtained with or by at least one camera located along, on, adjacent to, or near, the travel route or the second travel route via the display device.”

Petitioner argues that “Lappenbusch discloses that the video information regarding the travel route is obtained by cameras located along the travel route, e.g., from cameras located at and ‘focused on road sub-segments’ as a part of a ‘public highway monitoring system[.]’” Pet. 50 (citing Ex. 1009, 3:33–40).

Patent Owner does not argue claim 4, and we find the disclosures cited by Petitioner sufficient to show, by a preponderance of the evidence, that claim 4 would have been obvious in view of Obradovich and Lappenbusch.

e. Claim 5

Claim 5 adds to claim 1 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 Lappenbusch “discloses that it provides ‘trip preview images . . . taken from segments and/or sub segments of the preferred route[,] . . . shown in sequence in road image area 64.’” Pet. 51 (citing Ex. 1009, 7:46–50).

Patent Owner does not argue that the combination of Obradovich and Lappenbusch does not disclose the subject matter of claim 5, and we agree that the disclosures cited by Petitioner sufficient to disclose, at least, providing a picture or image along the travel route.

f. Claims 13 and 18

Claim 13 adds to claim 1 that “the apparatus processes a request to provide video information from or associated with a selected location, wherein the selected location is located remote from the apparatus, wherein the apparatus receives the video information from a computer or communication device associated with the selected location, and further wherein the apparatus provides the video information via the display device.” Claim 18 similarly adds to claim 5 that “the apparatus processes a request to provide video information from or associated with a selected location, wherein the apparatus receives the video information from a computer or communication device associated with the selected location, and further wherein the apparatus provides the video information via the display device.”

These claims recite subject matter that is essentially the same as that which distinguishes claim 21 from claim 15, and we conclude that the combination of Obradovich and Lappenbusch teaches or suggests this subject matter for the reasons discussed in connection with claim 15. *See* Section II.C.2.a.

g. Claim 22

Claim 22 adds to claim 21 “a microphone and voice recognition software, wherein the microphone and the voice recognition software provides or facilitates a hands-free mode of apparatus operation.”

This claim adds to claim 22 the same subject matter that claims 12 and 17 add to claims 1 and 15, respectively. We conclude that the combination of Obradovich and Lappenbusch teaches or suggests this subject matter for the reasons discussed in connection with claims 12 and 15. *See* Section II.C.2.g.

h. Claim 25

Claim 25 adds to claim 21 “a receiver” that receives traffic information, weather information, or news information, or information regarding a traffic condition or a weather condition” and that “the apparatus provides the traffic information, the weather information, or the news information, or the information regarding a traffic condition or a weather condition, via the display device or via the speaker.”

The subject matter of this claim corresponds to the last two limitations of claims 1 and 15, and we conclude that it is taught or suggested by the combination of Obradovich and Lappenbusch for the reasons discussed in connection with claim 1. *See* Section II.C.1.a.vi.

i. Conclusion Regarding Ground 2

For the reasons provided above, we find that Petitioner has shown how the limitations of claims 1, 3–5, 7, 8, 10–13, 15–18, 21, 22, and 25 would have been obvious in view of Obradovich and Lappenbusch. We conclude, therefore, that Petitioner has shown, by a preponderance of the

evidence, that claims 1, 3–5, 7, 8, 10–13, 15–18, 21, 22, and 25 would have been unpatentable over Obradovich and Lappenbusch.

3. *Ground 3: Obradovich and Hanchett*

Petitioner alleges in Ground 3 that claims 1, 3–5, 7, 8, 10–13, 15–18, 21, 22, and 25 are unpatentable as obvious in view of Obradovich and Hanchett.

Specifically, Petitioner argues that “[t]o the extent Patent Owner asserts the ‘receiver’ of claim 1 must be for a communications system other than the Internet, Hanchett discloses how to use a TV receiver to receive of video/image traffic information about a route” and that “Hanchett also provides implementation details for employing cameras to obtain images along a route.” Pet. 54.

Because Patent Owner has not argued that the “receiver” must be for a communications system other than the Internet, we conclude that this ground is cumulative of Grounds 1 and 2 and, therefore, do not reach it.

4. *Grounds 4–6: Adding Morimoto*

Grounds 4–6 add Morimoto to the art cited in Grounds 1 and 2, to address the subject matter of claims 2, 14, 19, and 23.

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.” Claims 14, 19, and 23 similarly recite 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 Morimoto discloses a system “configured to ‘automatically’ and continually ‘judg[e] whether or not the traveling road is consistent with the present route,’ and ‘[i]f not, off-route processing is performed (S30)’” where the “Steps S51-53 detail an algorithm” for the off-route processing performing, and the new route is subsequently displayed. *See* Pet. 76–77 (citing Ex. 1008, 11:4–33, 12:34–40). Petitioner argues it would have been obvious to add this feature to the Obradovich/Lappenbusch combination for reasons provided in Morimoto, including that it would conveniently reroute a drive who went off course. *See* Pet. 72–73.

Patent Owner does not dispute Petitioner’s contentions, and we agree that it would have been obvious to add re-routing to Obradovich’s system. We conclude that claims 2, 14, 19, and 23 would have been obvious in view of Obradovich, Lappenbusch, and Morimoto.

5. *Grounds 7–9: Adding Bouve*

Grounds 7–9 add Bouve to the art cited in Grounds 1–3, to address the subject matter of 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.”

Because we determined in Ground 1 that Obradovich’s disclosures regarding “hazards” and “highway warnings” are sufficient to have disclosed

to one of skill in the art “maintenance information” and that, in the alternative, it would have been obvious to provide such information, we conclude that these grounds are cumulative of Ground 1, and thus do not reach these grounds.

III. CONCLUSION

Claims 1–5, 7, 8, 10–19, 21–23, and 25 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, 7, 8, 10–12, 15–17	103(a)	Obradovich	1, 7, 8, 10– 12, 15–17	
1, 3–5, 7, 8, 10–13, 15–18, 21, 22, 25	103(a)	Obradovich, Lappenbusch	1, 3–5, 7, 8, 10–13, 15–18, 21, 22, 25	
1, 3–5, 7, 8, 10–13, 15–18, 21, 22, 25	103(a)	Obradovich, Hanchett [†]		
2, 14, 19	103(a)	Obradovich, Morimoto	2, 14, 19	
2, 14, 19, 23	103(a)	Obradovich, Lappenbusch, Morimoto	2, 14, 19, 23	
2, 14, 19, 23	103(a)	Obradovich, Hanchett, Morimoto	2, 14, 19, 23	
7	103(a)	Obradovich, Bouve [†]		
7	103(a)	Obradovich, Lappenbusch, Bouve [†]		
7	103(a)	Obradovich, Hanchett, Bouve [†]		
Overall Outcome			1–5, 7, 8, 10–19, 21– 23, 25	

[†] For the reasons identified above in Sections II.C.3 and II.C.5, we do not reach these grounds.

IV. ORDER

For the reasons given, it is:

ORDERED that claims 1–5, 7, 8, 10–19, 21–23, and 25 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. § 90.2.⁶

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