

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TEXTRON SPECIALIZED VEHICLES INC.,
Petitioner,

v.

SZ DJI TECHNOLOGY CO., LTD.,
Patent Owner.

IPR2023-01287
Patent 11,482,121 B2

Before MICHAEL R. ZECHER, FRANCES L. IPPOLITO, and
NATHAN A. ENGELS, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioner, Textron Specialized Vehicles, Inc. (“Textron”), filed a Petition requesting an *inter partes* review (“IPR”) of claims 1–30 of U.S. Patent No. 11,482,121 B2 (Ex. 1001, “the ‘121 patent”). Paper 2 (“Pet.”). Patent Owner SZ DJI Technology Co., Ltd. (“SZ DJI”), filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With our authorization, Textron filed a Preliminary Reply (Paper 8, “Prelim. Reply”) and SZ DJI filed a Preliminary Sur-reply (Paper 9, “Prelim. Sur-reply”), each of which were tailored narrowly to address the arguments for the claim term “restriction region” presented by SZ DJI in its Preliminary Response. *See* Prelim. Resp. 3–5, 7–9.

Based on the authority delegated to us by the Director under 37 C.F.R. § 42.4(a), we may not institute an IPR unless the information presented in the Petition and any response thereto shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (2023). Taking into account SZ DJI’s Preliminary Response, Textron’s Preliminary Reply, and SZ DJI’s Preliminary Sur-reply, we conclude that the information presented in the Petition establishes that there is a reasonable likelihood that Textron would prevail in challenging at least one of the claims 1–30 of the ‘121 patent as unpatentable. Pursuant to 35 U.S.C. § 314, we hereby institute an *inter partes* review as to these claims of the ‘121 patent.

A. Real Party in Interest

Textron identifies itself as a real party in interest (“RPI”). Pet. 2. Textron also identifies Textron Inc. and Textron Innovations, Inc. “as

potential” RPIs. *Id.* SZ DJI identifies itself as the only RPI. Paper 4, 2 (SZ DJI Mandatory Notice Information).

B. Related Matters

The parties indicate that the ‘121 patent is the subject of the following district court case: *SZ DJI Technology Co. Ltd. v. Textron Specialized Vehicles Inc.*, No. 1:23-cv-00055 (D. Del.) (filed Jan. 17, 2023). Pet. 2; Paper 4, 2. In addition to this Petition, we take this opportunity to note that Textron has filed the following two additional petitions challenging patents where SZ DJI is identified as an RPI: (1) *Textron Specialized Vehicles Inc. v. SZ DJI Technology Co., Ltd.*, IPR2023-01198, Paper 2 (PTAB July 17, 2023) (challenging claims 1–17 of U.S. Patent No. 10,640,224 B2); (2) *Textron Specialized Vehicles Inc. v. SZ SJI Technology Co., Ltd.*, IPR2023-01217, Paper 1 (PTAB July 19, 2023) (challenging claims 1–23 of U.S. Patent No. 11,462,116 B2).

C. The ‘121 Patent

The ‘121 patent, titled “Open Platform for Vehicle Restricted Region,” issued from U.S. Patent Application No. 17/523,859, filed on November 10, 2021. Ex. 1001, codes (54), (21), (22). The ‘859 application claims the benefit of a series of continuation applications ending with International Application No. PCT/CN2015/075627 (“the ‘627 application,” filed on Mar. 31, 2015). *Id.* at code (63), 1:6–14.

The ‘121 patent generally relates to a system that performs the following functions:

receive[s] an input specifying a location of the restriction region from a user via a user input device, obtain[s] information associated with the flight restriction region from one or more external data sources based on the location, and determine[s] a

space of the flight restriction region based on the information associated with the flight restriction region.

Ex. 1001, code (57). The systems, devices, and methods described in the ‘121 patent apply to a wide variety of movable objects, including a ground vehicle. *Id.* at 39:63–40:11.

Figure 10 of the ‘121 patent, reproduced below, provides platform 1000 for managing flight restriction regions, in accordance with certain embodiments. Ex. 1001, 13:8–9, 38:30–31.

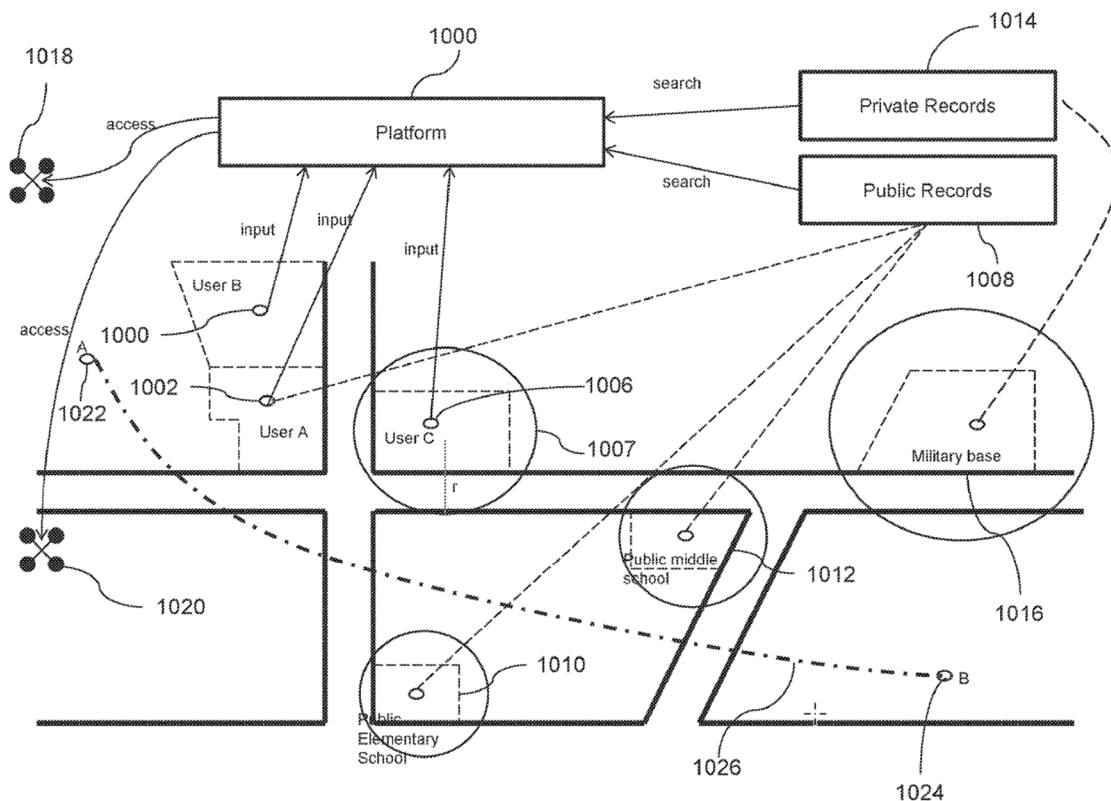


FIG. 10

Figure 10 illustrates platform 1000 that may interact with various users or external data. *Id.* at 38:31–33. The platform 1000 may receive input designating parameters of flight restriction regions from a plurality of users via user input devices. *Id.* at 38:35–37. For example, a homeowner may input a location of his home 1002, or a private park employee may input a

location of park 1004. *Id.* at 38:37–40. A user may also input a desired radius *r* of a flight restriction region, and based on the input parameters, flight restriction region 1007 may be determined. *Id.* 38:43–47. Platform 1000 may also comprise or be associated with an authentication/verification mechanism, and proposed parameters of flight restriction regions by users may be approved of or denied based on the approval process. *Id.* at 38:49–53.

The '121 patent discloses that unmanned aerial vehicles (“UAVs”) 1018, 1020 access or download the flight restriction regions for operation purposes. Ex. 1001, 39:40–43. For example, UAV 1018 may avoid entering restriction region 1007 or, alternatively, may enter the flight restriction region associated with 1010 only during after school hours. *Id.* at 39:46–49. In some embodiments, a flight response measure may include allowing the UAV to remain in the flight restriction region, but imposing certain restrictions on the operation of the UAV within the flight restriction region. *Id.* at 17:44–48.

D. Challenged Claims

Of the challenged claims, claims 1, 18, 24, and 28 are independent. Independent claims 1, 18, 24, and 28 are each directed to “[a] system for managing a restriction region.” Ex. 1001, 47:31–32, 49:5–6, 49:44–45, 50:22–23. Claims 2–16 directly or indirectly depend from independent claim 1. *Id.* at 47:57–49:4. Claims 19–23 directly depend from independent claim 18. *Id.* at 49:30–43. Claims 25–27 directly depend from independent claim 24. *Id.* at 50:9–22. Claims 29 and 30 directly depend from independent claim 28. *Id.* at 50:44–54. Independent claim 1 is illustrative of the challenged claims and is reproduced below:

1. A system for managing a restriction region, the system comprising:

one or more processors configured to:

receive one or more parameters of a designated restriction region for a ground vehicle, the one or more parameters being input by a user via a user interface, wherein the one or more parameters of the designated restriction region include at least a location associated with a private property;

authenticate an identity of the user to determine whether the user is authorized to designate the restriction region;

in response to determining the user is authorized to designate the restriction region, store the one or more parameters of the designated restriction region to a database;

associate one or more response measures with the designated restriction region based on the one or more parameters; and

implement the one or more response measures to affect operation of the ground vehicle along a travel path when the ground vehicle is within or near the designated restriction region, by at least one of (a) forcing the ground vehicle to change direction and move away from the designated restriction region, (b) forcing the ground vehicle to stop, or (c) providing an alert.

Ex. 1001, 47:31–56.

E. Asserted Prior Art References

Textron relies on the prior art references set forth in the table below.

Name¹	Reference	Dates	Exhibit No.
Humphries	US 7,164,986 B2	issued Jan. 16, 2007; filed Jan. 16, 2004	1004
Marcus	US 2016/0189549 A1	published June 30, 2016; filed Dec. 30, 2015	1005
Morgan	US 2014/0375480 A1	published Dec. 25, 2014; filed June 24, 2013	1006
Cronin	US 9,078,098 B1	issued July 7, 2015; filed Feb. 13, 2015	1007
Borugian	US 6,718,235 B1	issued Apr. 6, 2004; filed Mar. 6, 2002	1008

F. Asserted Grounds of Unpatentability

Textron challenges claims 1–30 of the '121 patent based on the asserted grounds of unpatentability set forth in the table below. Pet. 6, 15–75.

¹ For clarity and ease of reference, only the first named inventor is listed.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 8, 10, 11, 16–18, 22, 23	102(a)(1) and (2) ²	Humphries
13, 8, 10, 11, 16–18, 22, 23	103	Humphries
1–3, 8–11, 16–23	103	Humphries, Marcus
4–7	103	Humphries, Morgan
4–7	103	Humphries, Marcus, Morgan
12–15	103	Humphries, Cronin
12–15	103	Humphries, Marcus, Cronin
24–26, 28–30	103	Humphries, Borugian
27	103	Humphries, Borugian, Morgan

II. ANALYSIS

A. Claim Construction

In an IPR, claim terms are construed using the same claim construction standard as in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b) (2019). That is, claim terms generally are construed in accordance with their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art in view of the specification and the prosecution history pertaining to the patent at issue.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. Because the ’121 patent claims the benefit of a series of continuation applications ending with the ’627 application, which was filed after this date, the post-AIA versions of §§ 102 and 103 applies. Ex. 1001, code (63).

See id. The ordinary and customary meaning of a claim term “is its meaning to the ordinary artisan after reading the entire patent,” and “as of the effective filing date of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Cir. 2005) (en banc).

At the outset, we note that neither party in this proceeding has come out to explicitly construe the plain and ordinary meaning of the claim term “restriction region,” despite its near ubiquitous presence in both the specification and claims of the ’121 patent. In its Petition, Textron contends that we “need not expressly construe any [claim] term because the prior art [renders unpatentable] the claims under any plausible construction.” Pet. 15.

In its Preliminary Response, SZ DJI argues that Textron “broadly” and “incorrectly” interprets the claim term “restriction region” as encompassing Humphries’s “geofence objects.” Prelim. Resp. 3–4. SZ DJI contends that Textron does not explain how its understanding of the claim term “restriction region” as including “areas in which tracked objects are to be confined” would have been consistent with the specification of the ’121 patent, much less the understanding of a person of ordinary skill in the art. *Id.* at 3–5. Although SZ DJI does not provide an explicit construction of the plain and ordinary meaning of the claim term “restriction region” in the claim construction section of its Preliminary Response (*see id.*), it argues in another section of its Preliminary Response that “the specification consistently refers to a ‘restricted region’ as including an area where the vehicle is **excluded** from entry or its operation is at least limited upon transgression” (*id.* at 9 (citing Ex. 1001, 22:29–58)).

In its Preliminary Reply, Textron appears to implicitly construe the claim term “restriction region,” stating that “the term ‘restriction region’ on

its face connotes regions where some *restriction* exists, which would encompass regions that *confine* vehicles to a region as well as regions that merely generate a response if the vehicle crosses *into or out of the region*.” Prelim. Reply 1. To support its argument, Textron cites to an embodiment in the specification of the ’121 patent, which states “[t]he UAV may be forced to remain within the flight restriction region.” *Id.* (emphasis omitted) (quoting Ex. 1001, 17:48–49). Textron, however, makes an inartful argument towards the end of its Preliminary Reply, stating that “[Textron] respectfully submits that no construction is necessary for the term ‘restriction region[.]’” *Id.* at 4.

In its Preliminary Sur-reply, SZ DJI contends Textron “cherry-picks disclosure phrases” from the specification of the ’121 patent “to invert the actual meaning” of the claim term “restriction region,” uses those phrases out of context, and continually refuses to provide an explicit construction regarding the plain and ordinary meaning of this claim term. Prelim. Sur-reply 1. SZ DJI then reiterates its initial position that the claim term “restriction region” is an “exclusionary zone.” *Id.* at 2.

For purposes of institution, the only claim term that requires construction is “restricted region” because there appears to be a dispute between the parties regarding its scope and meaning. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Based on this preliminary record, we determine that the claim term “restriction region” should not be limited to an “exclusionary zone” or “an area where the vehicle is excluded from entry,” as asserted by SZ DJI. *See* Prelim. Resp. 9; Prelim. Sur-reply 2. Upon reviewing the specification of the ’121 patent, it states the following: “[i]n some embodiments, a flight response measure may include allowing the UAV to remain in the flight restriction region, but imposing certain restrictions on the operation of the UAV within the flight restriction region. The UAV may be forced to remain within the flight restriction region.” Ex. 1001, 17:44–49.

Construing the claim term “restriction region” in accordance with SZ DJI’s proposed construction as an “exclusionary zone” would exclude these embodiments, which allow the UAV to remain in the flight restriction region, or force the UAV to remain within the flight restriction region. *See, e.g., Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (Although a preferred embodiment should not be read into claims as limitations, construction of a claim term that excludes a preferred embodiment “is rarely, if ever, correct and would require highly persuasive evidentiary support.”). In light of these embodiments, which do not comport with SZ DJI’s proposed construction, and lacking persuasive evidentiary support from the specification to support its narrow construction, the proper construction of the claim term “restricted region” is broader than SZ DJI would allow.

At this stage of the proceeding, lacking a clear construction for the claim term “restriction region” in the Petition itself, we decline to adopt Textron’s implied construction for this claim term presented for the first time in the Preliminary Reply. *See* Prelim. Reply 1. Instead, for the

purposes of institution, we preliminary construe the claim term “restricted region” in accordance with its plain and ordinary meaning as “any region in which it is possible to limit or affect operation of a ground vehicle.”³ Our preliminary construction finds support in various embodiments disclosed the specification, which include both confinement and exclusion. *See, e.g.*, Ex. 1001, 17:48–49 (“The UAV may be forced to remain within the flight restriction region.”), 22:46–48 (“For instance, if the user is approaching a flight restriction region, the user may be alerted and may change course of the UAV to exit the flight restriction region.”). During trial, if the construction of the claim term “restriction region” remains in dispute, we invite the parties to provide arguments and evidence regarding the plain and ordinary meaning of this claim term.

B. Anticipation by Humphries

Textron contends that claims 1–3, 8, 10, 11, 16–18, 22, and 23 of the ’121 patent are unpatentable under 35 U.S.C. § 102(a)(1) and (2) as anticipated by Humphries. Pet. 15–44. Textron contends that Humphries discloses or describes the subject matter of each challenged claim. *Id.* Textron also relies on the testimony of David Hilliard Williams to support its positions. *See* Ex. 1003 (Declaration of Mr. Williams in Support of Petition).

³ A related case construing a similar term came to a similar preliminary conclusion. *See Textron Specialized Vehicles Inc. v. SZ DJI Technology Co., Ltd.*, IPR2023-01217, Paper 11 at 8–9 (PTAB Jan. 23, 2024) (preliminarily construing the term “vehicle restriction zone” to be “any region in which it is possible to limit or affect operation of a vehicle”).

Based on the preliminary record, we determine that Textron has not shown that there is a reasonable likelihood that it would prevail in challenging at least one of the claims 1–3, 8, 10, 11, 16–18, 22, and 23 as anticipated by Humphries. More specifically, we question whether the arguments presented by Textron meet the exacting standard of anticipation, particularly with respect to the “a location associated with a private property” feature of limitation 1[b]. *See infra* Section II.B.4.c.

We begin our analysis with the principles of law that generally apply to an asserted ground based on anticipation, followed by an assessment of the level of skill in the art, next we provide an overview of Humphries, and then we address the parties’ contentions with respect to independent claim 1.

1. Principles of Law

To establish anticipation, “all of the elements and limitations of the claim must be shown in a single prior reference, arranged as in the claim.” *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). When evaluating a single prior art reference in the context of anticipation, the reference must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)). “[T]he dispositive question regarding anticipation[, therefore, i]s whether one skilled in the art would reasonably understand or infer from the [prior art reference’s] teaching’ that every claim element was disclosed in that single reference.” *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1368 (Fed. Cir. 2003) (alterations in original) (quoting *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991)). We analyze the

asserted ground based on anticipation with the principles we identify above in mind.

2. Level of Skill in the Art

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case.” *Id.* at 696–97.

For purposes of institution, there is sufficient evidence in the record that enables us to determine the knowledge level of a person of ordinary skill in the art. Relying on the testimony of Mr. Williams, Textron argues the following:

As of the earliest claimed priority date, a person of ordinary skill in the art . . . would be a person with a [Bachelor of Science] degree in electrical engineering, computer engineering, or equivalent training or job experience, along with 1-2 years of experience in the field of [Global Positioning System], location-based-services, and/or geofencing. Additional education could compensate for less practical experience and vice versa.

Pet. 8–9 (internal citation omitted) (citing Ex. 1003 ¶ 66). In the Preliminary Response, SZ DJI does not address the level of skill in the art. *See* Prelim. Resp. To the extent necessary, and for the purposes of institution, we adopt

Textron's assessment of the level of skill in the art because it is consistent with the '121 patent and the asserted prior art.

3. Overview of Humphries

Humphries generally relates to a technology for “device tracking location adherence and route adherence” that provides at least “a tracked device receiving, a set of coordinates associated with a boundary area, and obtaining a position of the tracked device.” Ex. 1004, code (57). Humphries discloses using the received coordinates and the detected position of the tracked device to determine whether it is located inside or outside a boundary area. *Id.* Humphries also discloses generating and transmitting an alert signal in response to previously obtained results. *Id.*

Figure 1, reproduced below, illustrates a functional block diagram providing an exemplary device tracking system in accordance with Humphries's invention. Ex. 1004, 2:57–59.

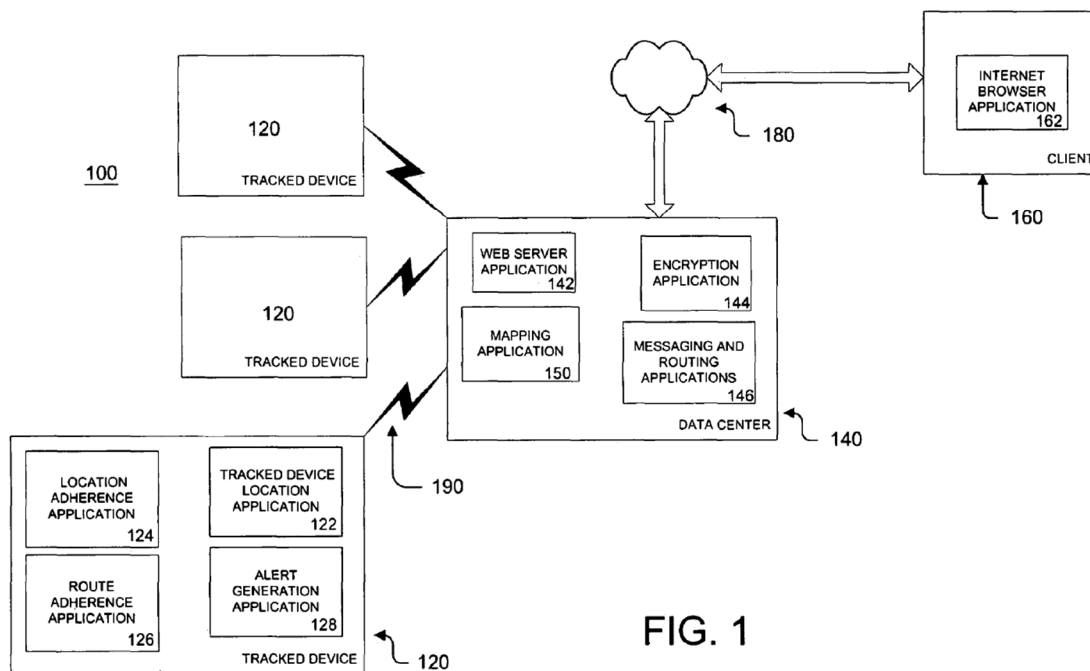


Figure 1 depicts device tracking system 100 which includes tracked devices 120, data center 140, and client 160. *Id.* at 3:58–64. Tracked device 120 can be implemented using one or more general purpose computers or microprocessors. *Id.* at 12:4–9. Once the user accesses mapping application 150 remotely, he/she can create geofence objects that can be associated with one or more tracked devices 120 as boundaries for tracking the movements of tracked device 120. *Id.* at 4:26–31. Various securities for authentication and authorization can be employed to ensure that only authorized users are accessing device tracking system 100. *Id.* at 6:35–38. Mapping application 150 resolves the boundaries for tracking the movements of tracked device 120 into a set of coordinates, which can be encrypted using encryption application 144 to ensure secure transmission and then can be forwarded using messaging and routing applications 146 to the associated tracked device 120 for storage and use. *Id.* at 5:34–38. If tracked device 120 has moved into or out of a geofence object, alert generation application 128 sends an alert message to data center 140. *Id.* at 6:3–5; *see also id.* at 9:1–5 (disclosing the same).

Figure 2, reproduced below, depicts geofence creation screen 200 presented to the client once mapping application 150 has been accessed and executed. Ex. 1004, 2:60–62, 6:33–35.

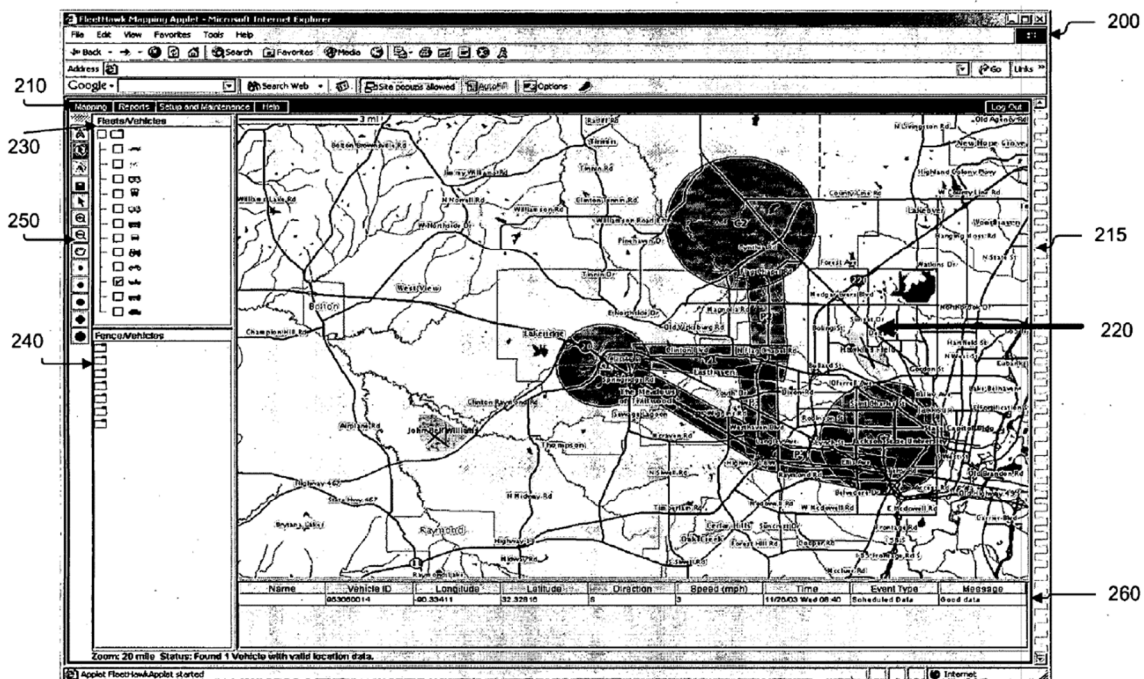


FIG. 2

Figure 2 illustrates geofence creation screen 200, which includes, among other things, mapping window 215 that shows current geofence objects 220 associated with a highlighted vehicle. *Id.* at 7:1–3.

4. Claim 1

For purposes of consistency and added clarity, we address each limitation of independent claim 1 in turn by relying on the bracketed annotations provided by Textron in the Petition. Pet. vi. The preamble of independent claim 1 recites 1[pre]—“[a] system for managing a restriction region, the system comprising[.]” Ex. 1001, 47:31–32. To the extent the preamble should be treated as limiting, Textron contends that Humphries discloses the features of the preamble because its geofenced objects constitute the claimed “restriction region.” Pet. 15–18. More specifically, Textron argues that Humphries discloses that a geofence object is a restriction region because it corresponds to a geographic region of a map and

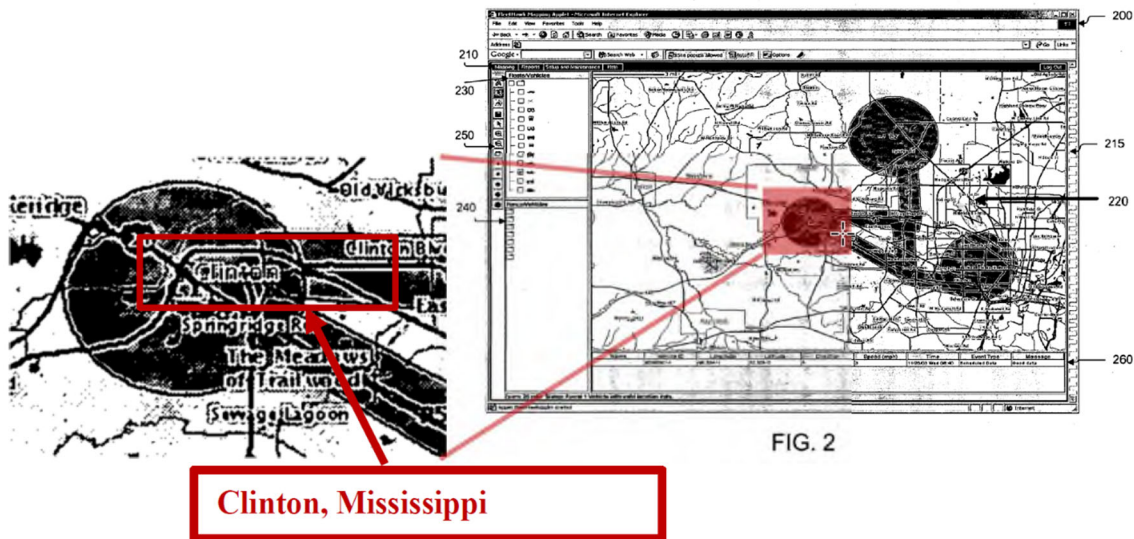
“depicts areas in which tracked objects are to be confined.” *Id.* at 16 (emphasis omitted) (quoting Ex. 1004, 1:44–50) (citing Ex. 1004, 5:23–25, 5:30–34). Furthermore, Textron contends that Humphries describes a geofence object as “one or more sets of geographic boundaries used to monitor tracked device 120.” *Id.* (quoting Ex. 1004, 5:23–25). Textron also contends that the system disclosed by Humphries manages a restriction region by “creating, editing, and grouping the restriction region.” *Id.* at 15–16 (citing Ex. 1004, 1:8–10, 1:44–50, 4:26–32, 5:27–29, 7:4–9).

Independent claim 1 recites limitation 1[a]—“one or more processors configured to[.]” Ex. 1001, 47:33. Textron contends that Humphries discloses this limitation because its one or more processors are configured to perform the claimed functions. Pet. 18 (citing Ex. 1003 ¶¶ 93–94). For example, Textron argues that Humphries discloses that tracked device 120 includes processor 903 for processing information, and computer system 1000, which implements data center 140 and client 160, includes processor 1003 for processing information. *Id.* at 18–19 (citing Ex. 1004, 12:14–65, 13:42–54).

Independent claim 1 recites limitation 1[b]—“receive one or more parameters of a designated restriction region for a ground vehicle, the one or more parameters being input by a user via a user interface, wherein the one or more parameters of the designated restriction region include at least a location associated with a private property[.]” Ex. 1001, 47:34–39. Textron contends that Humphries discloses “the one or more processors are configured to receive one or more parameters of a designated restriction region for a ground vehicle, the one or more parameters being input by a user via a user interface.” Pet. 19 (citing Ex. 1003 ¶¶ 95–101). For

example, Textron argues that Humphries's processor 1003 receives information from input devices (e.g., a keyboard or mouse). *Id.* (citing Ex. 1004, 13:7–18). Textron also argues that Humphries discloses a user can view and interact with mapping application 150 to create and edit the geofence object. *Id.* at 19–20 (citing Ex. 1004, 2:60–62, 5:18–29, 7:4–6, 5:23–25, Fig. 2). According to Textron, this includes designating a restriction region for a ground vehicle by entering one or more parameters that establish the boundaries of the geofence object. *Id.* at 20–22 (citing Ex. 1004, 4:26–32, 5:42–46, Figs. 7A, 7B).

With respect to the claimed “one or more parameters of the designated restriction region include[s] at least a location associated with a private property,” Textron contends that the specification of the '121 patent uses “a residential or commercial building” as an example of private property, and “parks” as an example of public property. Pet. 22 (citing Ex. 1001, 15:17–19). Textron argues that Humphries's Figure 2 discloses this particular claim feature of limitation 1[b]. *Id.* at 22. An annotated version of Humphries's Figure 2 found in Textron's Petition, reproduced below, depicts a blown-up portion of one of three circles that represent geofenced areas. *Id.* at 23 (citing Ex. 1004, Fig. 2).



Textron’s annotated version of Figure 2 illustrates a geofence creation screen 200 annotated to indicate that one of the circles includes a geofence around the city of Clinton, Mississippi. Ex. 1004, Fig. 2. Textron then argues that, to the extent that SZ DJI argues that Humphries does not disclose expressly “one or more parameters of the designated restriction region include at least a location associated with a private property,” it would have been obvious to a person of ordinary skill that “Humphries’s geofences could be drawn around” the large urban area depicted in Figure 2 that includes residential homes and commercial businesses. Pet. 23 (citing Ex. 1003 ¶ 100).

Independent claim 1 recites limitation 1[c]—“authenticate an identity of the user to determine whether the user is authorized to designate the restriction region[.]” Ex. 1001, 47:40–42. Textron contends that Humphries discloses this limitation because its system authenticates the identity of the user. Pet. 24 (citing Ex. 1003 ¶¶ 102–104). To support its argument, Textron contends that Humphries discloses that the mapping application “can be employed by a user, at client 160, once logged into the data center

via the web server 142.” *Id.* (quoting Ex. 1004, 5:18–21). Furthermore, Textron contends that Humphries discloses “various securities for authentication and authorization can be employed to ensure that only authorized users are accessing the system.” *Id.* (quoting Ex. 1004, 6:35–38). For example, Textron asserts that, prior to granting access to mapping application 150, a login screen requests that the user provide a username and password. *Id.* (citing Ex. 1004, 6:38–42).

Independent claim 1 recites limitation 1[d]—“in response to determining the user is authorized to designate the restriction region, store the one or more parameters of the designated restriction region to a database[.]” Ex. 1001, 47:43–46. Textron contends that Humphries discloses this limitation by repeating its contention that Humphries’s “authentication and authorization can be employed to ensure that only authorized users are accessing” mapping application 150 to designate the restriction region. Pet. 25 (citing Pet. 24; Ex. 1004, 6:35–38). Textron contends that Humphries also teaches that one or more processors can be “configured to store the one or more parameters of the designated restriction region,” (e.g., the boundaries of the geofence object). Pet. 25 (citing Ex. 1004, 7:9–12 (“once the geofence objects are created, they can be . . . saved to a database in the data center 140.”)).

Independent claim 1 recites limitation 1[e]—“associate one or more response measures with the designated restriction region based on the one or more parameters; and[.]” Ex. 1001, 47:47–49. Textron contends that Humphries discloses this limitation because by stating that “the tracked device 120 is configured to send an alert if it is determined that the device’s status has changed with respect to being inside or outside the boundary of

the geofence object.” Pet. 26 (citing Ex. 1004, 3:33–39, 5:39–44; 6:2–5; 6:12–15; 6:18–32; 11:13–17). Textron argues that providing an alert is one of the claimed response measures. *Id.* (citing Ex. 1001, 47:50–56 (claiming that the one or more response types are implemented by at least “providing an alert”)).

Independent claim 1 recites limitation 1[f], which includes the following:

implement the one or more response measures to affect operation of the ground vehicle along a travel path when the ground vehicle is within or near the designated restriction region, by at least one of (a) forcing the ground vehicle to change direction and move away from the designated restriction region, (b) forcing the ground vehicle to stop, or (c) providing an alert.

Ex. 1001, 47:50–56. Textron contends that Humphries discloses this limitation because its system implements at least one of the response measures in the claimed Markush group—namely, “providing an alert.” Pet. 28–29. Textron further contends that Humphries discloses providing an alert when the system determines that the ground vehicle moves into the geofence object. *Id.* at 29. For example, Textron argues that Humphries’s location adherence application 124 is capable of concluding whether tracked device 120 changes status by moving inside a geofence group, at which point alert generation mechanism 128 generates and transmits an alert to data center 140. *Id.* at 29–30 (citing Ex. 1004, 8:30–42, 8:60–9:5). Alternatively, Textron contends that Humphries discloses providing an alert when the ground vehicle leaves the geofence object. *Id.* at 30 (citing Ex. 1003 ¶ 116). For example, Textron argues that route adherence application 126 monitors tracked device 120 as it travels a specific route of geofence objects, at which point alert generation mechanism 128 generates and transmits an alert to

data center 140 when tracked device 120 leaves the geofence object. *Id.* (citing Ex. 1004, 11:18–12:3).

Based on the preliminary record, with respect to all the limitations of independent claim 1 except limitation 1[b], we find no deficiency in Textron’s characterization of Humphries and the general background in the art. At this stage of the proceeding, however, we question whether Textron has shown that Humphries discloses “a location associated with a private property” as recited in limitation 1[b]. *See* Prelim. Resp. 11–15. We address SZ DJI’s argument with respect to limitation 1[b], together with its other arguments directed to the remaining limitations of independent claim 1, below.

a. “restriction region” (limitations 1[pre] and 1[b]–1[f])

In its Preliminary Response, SZ SJI argues that the Textron fails to establish that Humphries discloses a “restriction region,” as recited in each of limitations 1[pre], 1[b]-1[f]. Prelim. Resp. 7. More specifically, SZ DJI contends that Textron’s mapping of “restriction region” to Humphries’s “geofence object” is not correct. *Id.* According to SZ DJI, Textron cites no support for its position that Humphries’s disclosure of a geofence object that confines tracked devices satisfies the claimed “restriction region.” *Id.* at 7–8. Instead, Textron asserts that “the specification consistently refers to ‘restriction region’ as including an area the vehicle is **excluded** from entry or its operation is at least limited upon transgression.” *Id.* at 9 (citing Ex. 1001, 22:29–58).

Based on the preliminary record, we are not persuaded by SZ DJI’s arguments. As we explain in our preliminary claim construction analysis above, we decline to adopt SZ DJI’s narrow view of the claim term

“restriction region” as limited to exclusion. Instead, we preliminary construe the claim term “restricted region” in accordance with its plain and ordinary meaning as “any region in which it is possible to limit or affect operation of a ground vehicle.” *See supra* Section II.A. Applying this preliminary construction, we are persuaded that Textron presents sufficient evidence that would support a finding that Humphries discloses the claimed “restriction region” because it confines tracked device 120 associated with a ground vehicle such as an automobile, truck or the like to certain boundaries encompassed by a geofence object. Ex. 1004, 4:26–31.

b. “receiv[ing] one or more parameters of a designated restriction region” (limitation 1[b])

In its Preliminary Response, SZ DJI contends that Humphries does not disclose “receiv[ing] one or more parameters of a designated restriction region” because, contrary to Textron’s claim mapping, independent claim 1 does not recite receiving parameters that actually “designate a restriction region for a ground vehicle.” Prelim. Resp. 10. Stated differently, SZ DJI argues that these claimed parameters do not “designate a restriction region.” *Id.* at 11 (citing Pet. 20). Instead, SZ DJI argues “the claimed parameters are of a restriction region *already* ‘designated’ as such.” *Id.*

At this stage of the proceeding, we are not persuaded by SZ DJI’s argument. Apart from mere attorney argument, the preliminary record does not support that “receiv[ing] one or more parameters of a designated restriction region” should be limited to receiving parameters for an *already* designated restriction, as asserted by SZ DJI. *Cf. In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (explaining that attorney arguments and conclusory statements that are unsupported by factual evidence are entitled

to little probative value). Instead, in our view, Textron presents sufficient evidence that would support a finding that Humphries’s disclosure of receiving “boundaries of the geofence objects” drawn by the user falls within the purview of the claimed “receiv[ing] one or more parameters of a designated restriction region.” *See* Pet. 19–20 (citing Ex. 1004, 5:18–29, 7:4–6, 13:7–18, Fig. 2).

c. “a location associated with a private property” (limitation 1[b])

In its Preliminary Response, SZ DJI contends that Humphries does not disclose expressly that its geofence objects include “a location associated with a private property.” Prelim. Resp. 12. SZ DJI argues that Humphries’s Figure 2 and its corresponding description neither expressly nor inherently discloses that the geofence encompasses a real-world location, such as the city of Clinton, Mississippi, that includes private property, such as residential or commercial buildings. *Id.* at 12–13.

Based on our initial review of Humphries, we are persuaded by SZ DJI’s argument that the reference does not disclose, either expressly or inherently, “private property,” such as residential and commercial buildings. *See* Ex. 1004. It is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it, for example, if the prior art necessarily functions in accordance with, or includes, the claimed limitations. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002). However, the fact that a certain thing may result from a given set of circumstances is not sufficient for inherent anticipation. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Figure 2 of Humphries does not meet the exacting standard of anticipation because there is nothing within the four corners of this reference

indicating that the geofence objects 220 actually encompass the city of Clinton, Mississippi, much less that such a location would be associated with private property, such as residential or commercial buildings.

Notwithstanding, we believe that Humphries, together with the general background knowledge of a person of ordinary skill in the art, teaches that the geofence annotated in Textron's version of Figure 2 would encompass a real-world location, such as the city of Clinton, Mississippi, which at the very least includes "a location associated with a private property." We address this below when addressing the asserted ground based on obviousness over Humphries. *See infra* Section II.C.2.

*d. "associate one or more response measures with the designated restriction region based on the one or more parameters"
(limitation 1[e])*

In its Preliminary Response, SZ DJI contends that Humphries does not disclose limitation 1[e] because "[Textron's] analysis inappropriately conflates two limitations—namely, the 'associate' limitation and the later-recited 'implement' limitation—and fails to sufficiently explain how Humphries's system separately 'associate[s]' a response measure to a geofence object." Prelim. Resp. 15 (alteration in original). Instead, SZ DJI argues that independent claim 1 requires both the "associate" feature of limitation 1[e] and the "implement" feature limitation 1[f], and that Textron cannot rely on the same disclosures in Humphries to account for both limitations. *Id.* at 15–17.

As an initial matter, although SZ DJI is correct that the "associate" feature of limitation 1[e] and the "implement" feature of limitation 1[f] are separate limitations required by independent claim 1, SZ DJI's arguments are not commensurate with the extent to which these two limitations are

interrelated. Indeed, limitation 1[e] recites, in relevant part, “associate one or more response measures,” whereas limitation 1[f] recites, in relevant part, “implement the one or more response measures.” Ex. 1001, 47:47–56. Stated differently, the association and implementation required by these two limitations both pertain to the “one or more response measures.” *Id.* As a result, it is not surprising that Textron would provide overlapping citations to Humphries’s disclosure to account for both limitations.

Contrary to SZ DJI’s assertions, Textron does not rely on Humphries’s disclosure of generating an alert when it is determined that tracked device 120 crosses the boundary of the geofence objects to account for both the “associate” feature of limitation 1[e] and the “implement” feature of limitation 1[f]. Instead, we understand Textron to argue that Humphries discloses the “associate” feature of limitation 1[e] because it describes configuring tracked device 120 to send an alert when its status changes with respect to being inside or outside the boundary of the geofence objects. Pet. 26 (citing Ex. 1004, 3:33–39, 5:39–44, 6:2–5, 6:12–15, 6:18–32, 11:13–17). We understand Textron to argue that Humphries discloses the “implement” feature of limitation 1[f] because, upon determining that tracked device 120 is inside or outside the boundary of the geofence objects, alert generation mechanism 128 generates and transmits an alert to data center 140. *Id.* at 29–30 (citing Ex. 1004, 8:30–42, 8:60–9:5, 11:18–12:3). In our view, Textron draws a sufficient distinction between configuring tracked device 120 to send an alert and actually implementing the alert that amounts to credible evidence to support a finding that Humphries discloses both the “associate” feature of limitation 1[e] and the “implement” feature of limitation 1[f].

e. Summary

In summary, Textron has not shown a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 1 is anticipated by Humphries.

5. Claim 2, 3, 8, 10, 11, 16–18, 22, and 23

For the most part, Textron’s arguments and evidence explaining how Humphries discloses all the limitations of independent claim 1 equally apply to all the limitations of independent claim 18. *Compare* Pet. 38–40, *with id.* at 16–30. As a result, for the same reasons we identify above with respect to independent claim 1, Textron has not shown a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 18 is anticipated by Humphries. *See supra* Section II.B.4.c.

By virtue of their dependency, claims 2, 3, 8, 10, 11, 16, 17, 22, and 23 include the same limitations as independent claims 1 or 18. Textron does not present additional arguments and evidence with respect to these dependent claims that remedy the deficiency in its analysis of anticipation by Humphries. *See* Pet. 31–44. Accordingly, for the same reasons we identify above with respect to independent claim 1, Textron has not shown a reasonable likelihood that that the subject matter of dependent claims 2, 3, 8, 10, 11, 15, 17, 22, and 23 are anticipated by Humphries.

C. Obviousness Over the Teachings of Humphries

Textron contends that claims 1–3, 8, 10, 11, 16–18, 22, and 23 of the ’121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the teachings of Humphries. Pet. 15–44. Textron contends that the teachings of Humphries account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have

been prompted to modify the teachings of this reference. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging at least one of the claims 1–3, 8, 10, 11, 16–18, 22, and 23 of the ’121 patent as obvious over Humphries. We begin our analysis with the principles of law that generally apply to an asserted ground based on obviousness, then we address the parties’ contentions with respect to independent claim 1.

1. Principles of Law

A claim is unpatentable under § 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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations).⁴ *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966). We analyze the asserted grounds based on obviousness with the principles we identify above in mind.

⁴ In its Preliminary Response, SZ DJI does not present arguments or evidence of secondary considerations. *See* Prelim. Resp.

2. Claim 1

With the exception of the “a location associated with a private property,” Textron’s arguments and evidence with respect to its anticipation ground based on Humphries challenging independent claim 1 equally apply to its obviousness ground based on Humphries challenging this same claim. *See* Pet. 15–44. As a result, our analysis below solely focuses on the Textron’s arguments and evidence as to how Humphries, together with the general background knowledge of a person of skill in the art, teaches “a location associated with a private property.”

a. “a location associated with a private property” (limitation 1[b])

Textron contends that, to the extent SZ DJI argues that Humphries does not disclose expressly one or more parameters of the designated restriction region include at least “a location associated with a private property,” it would have been obvious a person of ordinary skill in the art that Humphries’s geofence could be drawn around private property. Pet. 23 (citing Ex. 1003 ¶ 100). Textron argues that the ’121 patent indicates that a property can be either public property or private property, and that Humphries’s geofence objects encompass large urban areas as depicted in its annotated version of Humphries’s Figure 2. *Id.* (citing Ex. 1001, 15:17–19). Textron argues it would have been obvious that the areas depicted in its annotated version of Humphries’s Figure 2 would include at least the residential homes and commercial locations of the ’121 patent, both of which are private according to the ’121 patent. *Id.* (citing Ex. 1003 ¶ 100).

Based on the preliminary record, we discern no deficiency in Textron’s characterizations of Humphries, the general background knowledge in the art, or in Textron’s reasoning as to why it would have been

obvious for a person of ordinary skill in the art to modify Humphries to include a geofence that encompasses “a location *associated with* a private property.” In addition, for purposes of institution, we are persuaded by Mr. Williams’s testimony concerning the relevant disclosures in Humphries and the general background knowledge of a person of ordinary skill.

In its Preliminary Response, SZ DJI characterizes Textron’s obviousness theory regarding limitation 1[b] as follows: “that the claim limitations are obvious simply because Humphries’s geofences ‘could be drawn around’ private property.” Prelim Resp. 13. According to SZ DJI, obviousness requires “a showing that a [person of ordinary skill in the art] *would have* modified the reference as proposed, not *could have*.” *Id.* at 13–14.

As an initial matter, we note that the plain language of independent claim 1 does not require that the designated restriction region include a location that is a private property, but merely requires that it be “*associated with*” a private property. Ex. 1001, 47:34–39 (emphasis added). When taking into account the guidance regarding private property set forth in the specification of the ’121 patent, this simply means that the location be *associated with* a residential or commercial building, not that it actually is a residential or commercial building. *Id.* at 15:17–20 (“For example, a private property such a residential or commercial building (or public property such as parks) may be designated a flight restricted region.”).

With this in mind, we are persuaded based on the preliminary record that Textron’s annotated version of Humphries’s Figure 2, which illustrates a geofence that encompasses a real-world location, such as Clinton, Mississippi, at the very least would include a location associated with a

private property, such as a residential or commercial building. *See* Pet. 23 (citing Ex. 1003 ¶ 100). Textron’s declarant, Mr. Williams, testifies that “urban areas,” such as the one illustrated in the annotated version of Humphries Figure 2, “would include residential home and commercial business locations, both of which are private property according the ’121 patent.” Ex. 1003 ¶ 100. We preliminary credit Mr. Williams’s testimony in this regard because it is difficult to imagine property existing anywhere in an urban area that is not, at the very least, “associated with” a private property. *See KSR*, 550 U.S. at 418 (An obviousness evaluation “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”).

At this stage in the proceeding, we are not persuaded by SZ DJI’s argument that it would not have been obvious to a person of ordinary skill for Humphries’s user to input boundaries that include a location that is associated with a private property. *See* Prelim. Resp. 13–14. We find this argument unavailing due to the breadth of the term “associated with” paired with “private property.” During trial, if the construction of the claim term “associated with” remains in dispute, we invite the parties to provide arguments and evidence regarding its scope and meaning.

b. Summary

In summary, Textron has shown a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 1 would have been obvious over the teachings of Humphries.

3. Claims 2, 3, 8, 10, 11, 16-18, 22, and 23

Because Textron has demonstrated a reasonable likelihood of success that at least one claim of the '121 patent is unpatentable, we institute on all challenged claims and all grounds raised in the Petition. *See* 37 C.F.R. § 42.108(a) (2023). Therefore, at this stage of the proceeding, it is not necessary for us to provide an assessment of independent claim 18, as well as dependent claims 2, 3, 8, 10, 11, 16, 17, 22, and 23, under this obviousness ground. Nevertheless, we address certain dependent claims separately to provide additional guidance.

As one example, claim 2 depends from independent claim 1 and further recites “wherein the one or more processors are further configured to: display the designated restriction region at the user interface.” Ex. 1001, 47:57–60. Textron contends that Humphries teaches this additional limitation because the user can view or interact with mapping application 150 via a “user interface display” that displays the geofence objects. Pet. 30–31 (citing Ex. 1004, Fig. 2; Ex. 1003 ¶¶ 118, 119).

As another example, claim 3 depends from independent claim 1 and further recites “wherein: implementing the one or more response measures is performed when the ground vehicle is determined to be an unauthorized ground vehicle; and the ground vehicle is allowed to operate within or near the designated restriction region when the ground vehicle is determined to be an authorized ground vehicle.” Ex. 1001, 47:61–67. Textron argues that Humphries teaches the “unauthorized ground vehicle” feature of dependent claim 3 because it discloses that, when the ground vehicle leaves the geofence object, data center 140 sends an alert message. Pet. 31 (citing Ex. 11:18–12:3. Relying on the testimony of Mr. Williams, Textron asserts

that a person of ordinary skill in the art would have understood that Humphries's route adherence application 126 ensures that the ground vehicle is only authorized to traverse a specific route of geofence objects by tracking tracked device 120. *Id.* at 31–32 (citing Ex. 1003 ¶ 120). Textron asserts that, when the ground vehicle leaves the geofence objects, it becomes an unauthorized ground vehicle. *Id.* Textron argues that Humphries teaches the “authorized ground vehicle” feature of dependent claim 3 because it discloses that, when the ground vehicle is within the geofence objects, the ground vehicle is allowed to operate. *Id.* at 32 (citing Ex. 1004, 11:54–56). Relying on the testimony of Mr. Williams, Textron asserts that a person of ordinary skill in the art would have understood that a vehicle is an authorized ground vehicle when it is allowed to operate within the geofence objects. *See id.*

Based on the preliminary record, Textron's arguments and supporting evidence with respect to dependent claims 2, 3, 8, 10, 11, 16–18, 22, and 23 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron's arguments and supporting evidence as to how the teachings of Humphries, together with the background knowledge of a person of ordinary skill in the art, account for the limitations of these claims. *See Prelim. Resp.* 18. When considering Textron's un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 18 and dependent claims 2, 3, 8, 10, 11, 16–18, 22, and 23 would have been obvious over the teachings of Humphries.

D. Obviousness Over the Combined Teachings of Humphries and Marcus

Textron contends that claims 1–3, 8–11, and 16–23 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries and Marcus. Pet. 44–55. Textron contends that the combined teachings of Humphries and Marcus account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging claims 1–3, 8–11, and 16–23 of the ‘121 patent as obvious over the combined teachings of Humphries and Marcus. We begin our analysis with a brief overview of Marcus, then we address the parties’ contentions with respect to the challenged claims.

1. Overview of Marcus

Marcus generally relates to limiting access to airspace by drones. Ex. 1005, code (57). Marcus discloses receiving position information from a user about private property, forming restricted airspace for drone operation, allowing owners to control access to private or controlled areas, and requiring owners to verify control of property. *Id.* at code (57), ¶¶ 17, 22.

2. Claim 1

With the exception of the “a location associated with a private property,” Textron’s arguments and evidence with respect to its obviousness ground based on Humphries challenging independent claim 1 equally apply

to this obviousness ground based on Humphries and Marcus challenging the same claim. *See* Pet. 47 (citing Pet. 15–30).

Textron contends that, to the extent that SZ DJI argues that limitation 1[b] requires the one or more parameters of the designated restriction region to include “a location associated with a private property,” a person of ordinary skill in the art would have understood that Marcus teaches this limitation. Pet. 48 (citing Ex. 1003 ¶ 155). For example, Textron argues that Marcus discloses a database that allows a user to specify that a restricted location may include “land that any particular person or entity controls, for example a city, a park authority, or a private property.” *Id.* at 47 (quoting Ex. 1005 ¶ 14). Textron also argues that Marcus discloses that users “may prevent, control, calibrate, or monitor [the drone’s] access to a private area and/or a controlled area.” *Id.* at 48 (quoting Ex. 1005 ¶ 17) (alteration in original).

In its Preliminary Response, SZ DJI contends that the same deficiencies that apply to the anticipation and obviousness grounds based on Humphries, also apply to the obviousness ground based on the combined teachings of Humphries and Marcus. Prelim. Resp. 19–20. For the same reasons we identify in our analysis of independent claim 1 as anticipated and obvious over Humphries, those arguments are unavailing. *See supra* Section II.B and C.

Turning to rationale to combine, Textron contends that a person of ordinary skill would have found it obvious to modify the one or more parameters of the designated restriction region found in Humphries to include Marcus’s location information and additional restriction information relating to a private property, thereby enabling more functionality with

respect to controlling the boundary of the restricted region. Pet. 45 (citing Ex. 1003 ¶ 148). Textron contends that a person of ordinary skill would have been motivated to apply Marcus’s known technique of disbursing privacy preferences of private property owners, such as designating a private property as the restriction region, to Humphries’s known device. *Id.* at 45 (citing Ex. 1003 ¶ 149). Textron also argues that there are additional reasons that would have prompted a person of ordinary skill to combine the teachings of Humphries and Marcus. *Id.* at 44–46. Lastly, Textron asserts a person of ordinary skill in the art would have had a reasonable expectation of success in making this proposed combination because it “merely involve[s] the addition of the user’s privacy preferences related to a user’s private property and/or the step of verifying the user’s ownership or control of the private property.” *Id.* at 47 (citing Ex. 1003 ¶ 151). As one example, Textron asserts this could be accomplished by modifying Humphries’s mapping application 150 so the user verifies his/her identity and designates a restriction region that includes the user’s private property. *Id.*

In its Preliminary Response, SZ DJI does not address squarely Textron’s rationales to combine the teachings of Humphries and Marcus, but rather contends that a person of ordinary skill would not have been motivated to combine the teachings of these two references because: (1) both Humphries and Marcus relate to systems applicable to airborne vehicles, whereas the challenged claims require a ground vehicle (Prelim. Resp 22–23); (2) the claim term “restriction region” should be limited to exclusion, not confinement (*id.* at 23); (3) the user and roles in Humphries and Marcus are different, namely that there are two different users and two different roles (*id.* at 23–26); and (4) the combined system ignores certain

disclosures in Marcus that would purportedly create a tension in the proposed combination when it comes to generating an alert when Humphries's tracked device 120 crosses into or out of the geofence objects (*id.* at 27).

Based on the preliminary record, the purported deficiencies identified by SZ DJI do not undermine Textron's asserted obviousness ground based on the combined teachings of Humphries and Marcus. For example, it is not dispositive that both Humphries and Marcus relate to systems applicable to airborne vehicles, whereas the challenged claims require a ground vehicle, because Humphries explicitly contemplates that its system also is applicable to a ground vehicle. Ex. 1004, 4:26–31 (disclosing that tracked device 120 may be “associated with a vehicle such an automobile, truck or the like”), 5:44–46 (“The object being tracked as described in the present invention is a vehicle (e.g., cars, boats, trucks, trains).”). Moreover, as we explain in our preliminary claim construction analysis above, we decline to adopt SZ DJI's narrow view of the claim term “restriction region” as limited to exclusion. Instead, we preliminary construe the claim term “restricted region” in accordance with its plain and ordinary meaning as “any region in which it is possible to limit or affect operation of a ground vehicle.” *See supra* Section II.A. Lastly, even if the user and roles in Humphries and Marcus are different or there are certain disclosures in Marcus that might create tension with its proposed combination with Humphries, this would not undermine Textron's rationale to combine the teaching of these two reference. Textron does not seek to bodily incorporate all of Marcus into Humphries, but instead only relies on Marcus to teach specifying a location associated with private property. *See* Pet. 47–48 (citing Ex. 1005 ¶¶ 14, 17).

In summary, Textron has shown a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 1 would have been obvious over the combined teachings of Humphries and Marcus.

3. Claims 2, 3, 8-11, and 16-23

For the most part, Textron’s arguments and evidence explaining how Humphries teaches all the limitations of claims 2, 3, 8–11, 16–18, 22, and 23 equally apply to its explanation as to how the combined teachings of Humphries and Marcus account for all the limitations of these same claims. *Compare* Pet. 30–44, *with id.* at 49–52, 54–55. We address certain dependent claims separately to provide additional guidance.

Claim 19 depends from independent claim 18 and further recites “wherein the identity of the user is an identity of an owner of the private property.” Ex. 1001, 49:30–31. Textron contends that Marcus teaches this additional limitation because it states that users “may be required to verify ownership or control of the property.” Pet. 52 (quoting Ex. 1005 ¶ 17).

Claim 20 depends from independent claim 18 and further recites “wherein the identity of the user is an identity of a renter of the private property.” Ex. 1001, 49:32–33. Textron contends that Marcus teaches this additional limitation because its discloses that property owners control the airborne vehicle’s access to a private area and they may be required to verify ownership or control of the property by inputting address or location information into a database. Pet. 52 (citing Ex. 1005 ¶ 17). Relying on the testimony of Mr. Williams, Textron asserts that a person of ordinary skill in the art would have found it obvious that Marcus’s disclosure of identifying the user may result in identifying a renter of private property. *Id.* at 52–53. Textron further asserts that it would have been apparent to a person of

ordinary skill in the art that Marcus’s disclosure of “other responsible parties” associated with private property could be a renter of the property because a renter also has “control of the property.” *Id.*

Claim 21 depends from independent claim 18 and further recites “wherein authenticating the identity of the user includes receiving an electronic transmission from a third party that indicates that the user is authorized.” Ex. 1001, 49:34–37. Textron contends that Marcus teaches this additional limitation because, once again, users “may be required to verify ownership or control of the property.” Pet. 53 (quoting Ex. 1005 ¶ 17). Relying on the testimony of Mr. Williams, Textron asserts that a person of ordinary skill in the art would have found it obvious to conduct this verification by comparing the user identification with information already saved within a system, such as a property records database that includes the identity of the property owner. *Id.* at 53–54 (citing Ex. 1003 ¶ 171; Ex. 1005 ¶ 38).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claims 2, 3, 8–11, and 16–23 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries and Marcus account for the limitations of these claims. *See* Prelim. Resp. 27. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 2, 3, 8–11, and 16–23 would have been obvious over the combined teachings of Humphries and Marcus.

E. Obviousness Over the Combined Teachings of Humphries and Morgan

Textron contends that claims 4–7 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries and Morgan. Pet. 55–62. Textron contends that the combined teachings of Humphries and Morgan account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging claims 4–7 of the ‘121 patent as obvious over the combined teachings of Humphries and Morgan. We begin our analysis with a brief overview of Morgan, then we address the parties’ contentions with respect to the challenged claims.

1. Overview of Morgan

Morgan generally relates to time-triggered geo-fencing that includes, among other things, receiving a set of variables related to a geofence, establishing the geofence at the predetermined time, receiving signals indicative of a location of a vehicle, the receiving by an onboard device coupled to the vehicle, determining if the vehicle has crossed the geofence, and if the vehicle has crossed the geofence, sending an alert related to the location of the vehicle. Ex. 1006, code (57). Of particular importance to this proceeding, Morgan states that “[t]he method of establishing a geo-fence at a predetermined time and for a duration of a present duration,” such as

“every day; every week day; every weekend day; every third day, or every work day.” *Id.* ¶¶ 69, 35, Fig. 7.

2. Claims 4–7

As one example, claim 4 depends from independent claim 1 and further recites “wherein the one or more parameters include at least time-related activities.” Ex. 1001, 48:1–2. Textron contends that Morgan teaches this additional limitation because it discloses receiving a set of variables related to a geofence to establish repeating intervals lasting for a preset duration, each instance of the repeating intervals occurring at a predetermined time. Pet. 58 (citing Ex. 1006, claim 1, ¶ 69, Fig. 7 (step 702); Ex. 1003 ¶ 180). Textron also argues that Morgan teaches that a user can define a geofence around a “restricted area” with a preset duration and specific predetermined time. *Id.* at 59 (quoting Ex. 1006 ¶ 40).

Turning to rationale to combine, Textron contends that a person of ordinary skill in the art would have been motivated to improve Humphries’s system (e.g., mapping application 150) by adding Morgan’s requirement for the user to establish the geofence at repeating intervals lasting for a preset duration and starting at a predetermined time. Pet. 56 (citing Ex. 1003 ¶ 177). According to Textron, the proposed combination would predictably result in establishing a geofence at a predetermined time for a preset duration, and it would have been well within the skill level of a person of ordinary skill in the art to do so. *Id.* Textron asserts that there would have been a reasonable expectation of success in making this proposed combination because it would have merely involved adding Morgan’s instruction to establish the geofence at a predetermined time with a present duration, and it would have taken no more than ordinary skill to successfully

incorporate Morgan’s time-related information into Humphries’s geofence information. *Id.* (citing Ex. 1003 ¶ 179).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claims 4–7 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries and Morgan account for the limitations of these claims. *See* Prelim. Resp. 27–28. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 4–7 would have been obvious over the combined teachings of Humphries and Morgan.

F. Obviousness Over the Combined Teachings of Humphries, Marcus, and Morgan

Textron also contends that claims 4–7 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries, Marcus, and Morgan. Pet. 55–62. Textron contends that the combined teachings of Humphries, Marcus, and Morgan account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

We understand Textron to introduce this redundant ground in the event we do not find that Humphries teaches “a location associated with a private property,” as recited in limitation 1[b]. As we explain above, we are persuaded by Textron’s argument that Marcus teaches “a location associated

with a private property,” as recited in limitation 1[b], because it allows a user to specify that a restricted location may include “land that any particular person or entity controls, for example a city, a park authority, or a private property.” *See supra* Section II.D.2. (quoting Ex. 1005 ¶ 14).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claims 4–7 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries, Marcus, and Morgan account for the limitations of these claims. *See* Prelim. Resp. 27–28. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 4–7 would have been obvious over the combined teachings of Humphries, Marcus, and Morgan.

G. Obviousness Over the Combined Teachings of Humphries and Cronin

Textron contends that claims 12–15 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries and Cronin. Pet. 62–68. Textron contends that the combined teachings of Humphries and Cronin account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging claims 12–15 of the ‘121 patent as obvious over the combined

teachings of Humphries and Cronin. We begin our analysis with a brief overview of Cronin, then we address the parties' contentions with respect to the challenged claims.

1. Overview of Cronin

Cronin generally relates to systems and methods for geofencing using a mobile device. Ex. 1007, code (57). Cronin discloses that geofencing can be a third-party defined location or route 136. *Id.* at 3:32–36, Fig. 1. Cronin also discloses downloading information from third-party databases, which includes “a historical society,” “safety.org,” and “offenderregistry.org.” *Id.* at 5:1–4, 6:18–21.

2. Claims 12–15

As one example, claim 12 depends from independent claim 1 and further recites “wherein the one or more processors are further configured to: access information associated with the designated restriction region from one or more third party data sources based on the location.” Ex. 1001, 48:34–38. Textron contend that Cronin teaches this additional limitation because it discloses that smartphone implementing geofencing functions “will download information from a third-party database regarding one or more geographic locations that are or will be associated with one or more fences.” Pet. 64 (quoting Ex. 1007, 3:20–23). Textron further argues that Cronin discloses a variety of third parties that can serve as data sources, such as “safety.org” and “offenderregistry.org.” *Id.* (quoting Ex. 1007, 6:18–21).

Turning to rationale to combine, Textron contends that a person of ordinary skill in the art would have been motivated to modify Humphries's vehicle tracking system to include Cronin's teaching of obtaining information of the geofence from a third-party database because it would

predictably result in providing additional information associated with the designated restriction region, and it would have been well-within the skill level of a person of ordinary skill in the art to do so. Pet. 39 (citing Ex. 1003 ¶ 192). Textron asserts that there would have been a reasonable expectation of success in making this proposed combination because it would merely involve an additional step of Humphries's tracked device 120 or data center 140 obtaining information from a third-party, as taught by Cronin. *Id.* at 64 (citing Ex. 1003 ¶ 193).

Based on the preliminary record, Textron's arguments and supporting evidence with respect to dependent claims 12–15 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron's arguments and supporting evidence as to how the combined teachings of Humphries and Cronin account for the limitations of these claims. *See* Prelim. Resp. 28. When considering Textron's un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 12–15 would have been obvious over the combined teachings of Humphries and Cronin.

H. Obviousness Over the Combined Teachings of Humphries, Marcus, and Cronin

Textron also contends that claims 12–15 of the '121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries, Marcus, and Cronin. Pet. 62–68. Textron contends that the combined teachings of Humphries, Marcus, and Cronin account for the subject matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the

teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

We understand Textron to introduce this redundant ground in the event we do not find that Humphries teaches “a location associated with a private property,” as recited in limitation 1[b]. As we explain above, we are persuaded by Textron’s argument that Marcus teaches “a location associated with a private property,” as recited in limitation 1[b], because it allows a user to specify that a restricted location may include “land that any particular person or entity controls, for example a city, a park authority, or a private property.” *See supra* Section II.D.2. (quoting Ex. 1005 ¶ 14).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claims 12–15 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries, Marcus, and Cronin account for the limitations of these claims. *See* Prelim. Resp. 28. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 12–15 would have been obvious over the combined teachings of Humphries, Marcus, and Cronin.

I. Obviousness Over the Combined Teachings of Humphries and Borugian

Textron contends that claims 24–26 and 28–30 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries and Borugian. Pet. 68–73. Textron contends that the combined teachings of Humphries and Borugian account for the subject

matter of each challenged claim, and provides reasoning as to why a person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging claims 24–26 and 28–30 of the ‘121 patent as obvious over the combined teachings of Humphries and Borugian. We begin our analysis with a brief overview of Borugian, then we address the parties’ contentions with respect to the challenged claims.

1. Overview of Borugian

Borugian generally relates to a method and apparatus for detecting conditions that indicate unauthorized usage of a vehicle, and for responding to the conditions that indicate the vehicle is being used in an unauthorized or unintended way. Ex. 1008, code (57). Borugian discloses determining if a vehicle (1) has deviated from a planned route more than an accepted deviation radius; or (2) has entered or approached a perimeter around a restricted area. *Id.* at 3:34–48, 4:1–12, 12:1–8, 12:38–66. In response to the vehicle crossing or potential crossing of a geofence, Borugian discloses responsive measures, such as providing a warning to the driver of the vehicle and/or shutting down the vehicle. *Id.* at 12:30–31, 12:61–66, 13:13.

2. Claim 24

With the exception of “forcing the ground vehicle to stop movement,” Textron’s arguments and evidence with respect to its obviousness ground based on Humphries challenging independent claim 1 equally apply to this obviousness ground based on Humphries and Borugian challenging

independent claim 24. *See* Pet. 70–71 (citing Pet. 15–30). Independent claim 24 recites limitation 24[f]—“and implement the one or response measures to affect operation of the ground vehicle along the travel path when the ground vehicle is within or near the designated restriction region by forcing the ground vehicle to stop movement.” Ex. 1001, 50:39–43. Textron contends that Borugian teaches “forcing the ground vehicle to stop movement” because it discloses that, if the vehicle is within or near the designated restriction region or the vehicle deviates from the authorized route, the driver may be alerted and the ground vehicle is shut down. Pet. 70–71 (citing Ex. 1008, 4:1–3, 12:1–29). Relying on the testimony of Mr. Williams, Textron asserts that a person of ordinary skill in the art would have understood that Borugian’s response measures are associated with the designated restriction region based on the one or more parameters, such as the boundaries of the restriction region. *Id.* (citing Ex. 1003 ¶ 212). Textron also asserts that a person of ordinary skill in the art would have understood that Borugian’s ground vehicle is forced to stop movement when it is shut down. *Id.*

Turning to rationale to combine, Textron contends that a person of ordinary skill would have been motivated to modify Humphries’s base vehicle tracking system to include the known features and techniques provided by Borugian’s vehicle tracking system. Pet. 69 (citing Ex. 1003 ¶ 205). For example, Textron argues that “a [person of ordinary skill in the art] would have been motivated to extend the capabilities of Humphries’s tracked devices [120] to, in addition to transmitting an alert, provide ‘a response to the detected conditions that *assures* that the usage is not unauthorized or *shuts down the vehicle.*’” *Id.* (citing Ex. 1008, 1:56–60;

Ex. 1003 ¶ 205). According to Textron, modifying Humphries in this way would predictably result in providing Humphries’s base vehicle tracking system “with the added capability to shut down a vehicle that has crossed or is about to cross a geofence boundary.” *Id.* Textron asserts that there would have been a reasonable expectation of success in making this proposed combination because it would merely involve the addition of Borugian’s vehicle controls to Humphries’s tracked device 120. *Id.* at 69–70 (citing Ex. 1003 ¶ 207).

In its Preliminary Response, SZ DJI contends that Textron fails to present a sufficient rationale to combine the teachings of Humphries and Borugian for two reasons. Prelim. Resp. 30–34. First, SZ DJI repeats its previous argument regarding a distinction between the “associate” feature of limitation 1[e] and the “implement” feature of limitation 1[f] that are also recited in limitations 24[e] and 24[f]. *Id.* at 31–32. For the same reasons we identify above in our analysis of independent claim 1, we are not persuaded by this argument. That is, Textron draws a sufficient distinction between configuring Humphries’s tracked device 120 to send an alert and actually implementing the alert that amounts to credible evidence that would support a finding that Humphries discloses both the “associate” feature of limitation 24[e] and the “implement” feature of limitation 24[f]. *See supra* Section II.B.4.d.

Second, SZ DJI argues that using Borugian to teach limitation 24[f]—namely, “affect[s] operation of the ground vehicle along a travel path *when the ground vehicle is within or near the designated restriction region* by forcing the ground vehicle to stop movement,” does not work with Humphries because Humphries teaches an area in which tracked objects are

to be confined and ensures tracked objects stay within that area, whereas Borugian teaches that vehicles would be shut down within a restricted perimeter. Prelim. Resp. 32–34. This argument is predicated on the notion that we adopt SZ DJI’s narrow view of the claim term “restriction region” as limited to exclusion. As we explain in our preliminary claim construction analysis above, we decline to adopt SZ DJI’s narrow view of this claim term. Instead, we preliminary construe the claim term “restricted region” in accordance with its plain and ordinary meaning as “any region in which it is possible to limit or affect operation of a ground vehicle.” *See supra* Section II.A. With this preliminary construction in mind, we are persuaded that Textron presents sufficient arguments and evidence for purposes of institution that would support a determination that a person of ordinary skill in the art would have modified Humphries’s tracked device 120 to implement Borugian’s response measures, such as shutting down the vehicle when it crosses, or is about to cross, the geofenced objects. *See* Pet. 68–70 (citing Ex. 1008, 1:56–60, 12:30–31, 12:61–66, 13:1–13; Ex. 1003 ¶¶ 204–207).

In summary, Textron has shown a reasonable likelihood that it would prevail on its assertions that the subject matter of independent claim 24 would have been obvious over the teachings of Humphries and Borugian.

3. Claims 25, 26, and 28–30

For the most part, Textron’s arguments and evidence explaining how the combination of Humphries and Borugian teaches all the limitations of independent claim 24 equally apply to all the limitations of independent claim 28. *Compare* Pet. 72–73, *with id.* at 70–72. We separately address one dependent claim below.

As one example, claim 25 depends from independent claim 24 and further recites “wherein the one or more processors are further configured to: display the designated restriction region at the user interface.” Ex. 1001, 50:9–12. Textron contends that Humphries teaches this additional limitation for the same reasons it identifies above with respect to dependent claim 2. Pet. 72. That is, Textron contends that Humphries’s user can view or interact with mapping application 150 via a “user interface display” that displays the geofence objects. *Id.* at 30–31 (citing Ex. 1004, Fig. 2; Ex. 1003 ¶¶ 118, 119).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claims 25, 26, and 28–30 are sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries and Borugian account for the limitations of these claims. *See* Prelim. Resp. 34. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claims 25, 26, and 28–30 would have been obvious over the combined teachings of Humphries and Borugian.

*J. Obviousness Over the Combined Teachings of Humphries,
Borugian, and Morgan*

Textron contends that claim 27 of the ‘121 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combined teachings of Humphries, Borugian, and Morgan. Pet. 73–74. Textron contends that the combined teachings of Humphries, Borugian, and Morgan account for the subject matter of this challenged claim, and provides reasoning as to why a

person of ordinary skill in the art would have been prompted to modify the teachings of these references. *Id.* Textron also relies on the testimony of Mr. Williams to support its positions. *See* Ex. 1003.

Based on the preliminary record, we determine that Textron has shown that there is a reasonable likelihood that it would prevail in challenging claim 27 of the ‘121 patent as obvious over the combined teachings of Humphries, Borugian, and Morgan. Claim 27 depends from independent claim 24 and further recites “wherein the one or more parameters include at least time-related information.” Ex. 1001, 50:20–21. Textron contends that Humphries teaches this additional limitation for the same reasons it identifies above with respect to dependent claim 4. Pet. 74. That is, Morgan discloses receiving a set of variables related to a geofence to establish repeating intervals lasting for a preset duration, each instance of the repeating intervals occurring at a predetermined time. *Id.* at 58 (Ex. 1006, claim 1, ¶ 69, Fig. 7 (step 702); Ex. 1003 ¶ 180). Textron also argues that Morgan teaches that a user can define a geofence around a “restricted area” with a preset duration and specific predetermined time. *Id.* at 59 (quoting Ex. 1006 ¶ 40).

Turning to rationale to combine, Textron contends that a person of ordinary skill in the art would have been motivated to modify the combined system of Humphries and Borugian by adding Morgan’s requirement for the user to establish the geofence at repeating intervals lasting for a preset duration and starting at a predetermined time. Pet. 74 (citing Ex. 1003 ¶ 223). According to Textron, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Humphries, Borugian, and Morgan “to further enhance safety and provide additional functionality

with respect to the geofence control and management.” *Id.* Textron asserts that there would have been a reasonable expectation of success in making this proposed combination because it would have merely involved adding Morgan’s instruction to establish the geofence at a predetermined time with a present duration into the combined system of Humphries and Borugian. *Id.* (citing Ex. 1003 ¶ 224).

Based on the preliminary record, Textron’s arguments and supporting evidence with respect to dependent claim 27 is sufficient for purposes of institution. At this stage of the proceeding, SZ DJI does not address separately Textron’s arguments and supporting evidence as to how the combined teachings of Humphries, Borugian, and Morgan account for the limitations of these claims. *See* Prelim. Resp. 35. When considering Textron’s un rebutted arguments and supporting evidence, Textron has demonstrated a reasonable likelihood that it would prevail on its assertions that the subject matter of dependent claim 27 would have been obvious over the combined teachings of Humphries, Borugian, and Morgan.

III. CONCLUSION

We conclude that the information presented in the Petition demonstrates that there is a reasonable likelihood that Textron would prevail in challenging at least one of claims 1–30 of the ’121 patent as unpatentable. Accordingly, we institute an IPR as to all challenged claims and all the grounds raised in the Petition. *See* 37 C.F.R. § 42.108(a). At this stage of the proceeding, we have not made a final determination with respect to the patentability of the challenged claims or the construction of any claim term.

IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), an IPR is hereby instituted as to all of the challenged claims and all of the grounds raised in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), 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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Patent 11,482,121 B2

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