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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JASON BARTON and JON GASTER

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Appeal 2020-005325  
Application 14/541,923  
Technology Center 2400

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Before JEAN R. HOMERE, JAMES B. ARPIN, and  
ADAM J. PYONIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) the Examiner’s final rejections of claims 1, 2, 4, 5, and 21–41. Final Act. 2.<sup>2</sup> Claim 3 is canceled, and claims 6–20 are withdrawn. Appeal Br. 10–13 (Claims App.).

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<sup>1</sup> “Appellant” here refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party-in-interest as KSI Data Sciences Inc. Appeal Br. 2.

<sup>2</sup> In this Decision, we refer to Appellant’s Appeal Brief (“Appeal Br.,” filed April 17, 2020) and Reply Brief (“Reply Br.,” filed July 13, 2020); the Final Office Action (“Final Act.,” mailed October 30, 2019) and the Examiner’s Answer (“Ans.,” mailed May 13, 2020); and the Specification (“Spec.,” filed November 14, 2014). Rather than repeat the Examiner’s findings and determinations and Appellant’s contentions in their entirety, we refer to these documents.

We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

## STATEMENT OF THE CASE

Appellant’s claimed systems and methods

relate[] to unmanned aerial vehicle integration hardware and software system for use in connection with the Internet and mobile networks. The present invention includes an unmanned aerial vehicle encoding streaming device, a software system and an interface which enables an end-user to perform geospatial searches on video and camera feeds from various siloed sources so that immediate data access will become available and analytics, such as rules application, timeline construction, chain of custody and various other parameters, can be easily established.

Spec. ¶ 2.

As noted above, claims 1, 2, 4, 5, and 21–41 stand rejected. Claims 1 and 30 are independent. Appeal Br. 9–10 (claim 1), 14 (claim 30) (Claims App.). Claim 1 recites “[a]n unmanned collaborative aerial vehicle data management system,” and claim 30 recites “[a] method for collaboratively utilizing aerial vehicle data for at least one unmanned aerial vehicle.” *Id.* Claims 2, 4, 5, 21–29, 40, and 41 depend directly or indirectly from claim 1; and claims 31–39 depend directly or indirectly from claim 30. *Id.* at 10–15.

Claim 1, reproduced below with disputed limitations emphasized, is illustrative.

1. An unmanned collaborative aerial vehicle data management system, comprising:
  - at least one unmanned aerial vehicle;
  - an unmanned aerial vehicle system ground station;
  - a local content delivery network;

a signal encoder broadcaster comprising:

a WiFi module;

a DSP configured to receive HDMI data and telemetry via a video multiplexer chip, GPS data via a module, cellular data via the module, and WiFi data via the WiFi module, the multiplexer chip and the module being comprised in the signal encoder broadcaster; and

a field programmable gate array for controlling the DSP which executes on-the-fly encode/decode data and signal packetization and encapsulation;

the unmanned aerial vehicle data management system further comprising:

a local cache which receives data from the encoder broadcaster for local storage;

a data manager located on the Internet cloud which receives live UAV video from the signal encoder broadcaster and archival data from the local cache; and

a remote content delivery network for signal transmission to a computer browser and at least one mobile device having a display;

a collaboration tool providing an informed decision loop for at least one user that is coordinated by the data manager;

a user authenticator for enabling the encoder broadcaster to transmit live UAV video to and receive communications from authenticated resources via the Internet,

wherein dynamic data streams originating from the at least one UAV are managed, coordinated and fused with imagery and data from other remote sensors for delivery to the at least one mobile device via WiFi in order to collaboratively manage multiple users to iteratively identify to the at least one user when and where the at least one unmanned aerial vehicle has navigated through targeted locations and where the at least one UAV originated from,

*wherein the at least one mobile device is configured to display a map on the display and allow identification of a bookmarked*

*area of the map by the at least one user, and wherein the data manager is configured to create model instances necessary to automatically provide alerts to the at least one mobile device regarding the bookmarked area.*

*Id.* at 9–10 (emphases added). Claim 30 similarly recites the steps of “receiving from the at least one user the identification of a *bookmarking area of the map*” and “creating model instances necessary to automatically provide alerts to the at least one mobile device regarding the *bookmarking area.*” *Id.* at 14 (emphases added).

#### REFERENCES AND REJECTIONS

The Examiner relies upon the following references in rejecting the claims:

<b>Name<sup>3</sup></b>	<b>Number</b>	<b>Publ'd</b>	<b>Filed</b>
Gale	US 2011/0103293 A1	May 5, 2011	Oct. 29, 2010
Khazan	US 2012/0237028 A1	Sept. 20, 2012	Mar. 17, 2011
Verna	US 2012/0299751 A1	Nov. 29, 2012	Jan. 30, 2012
Canant	US 2013/0021475 A1	Jan. 24, 2013	Jan. 20, 2012
Omer	US 2013/0050486 A1	Feb. 28, 2013	Aug. 29, 2011

Specifically, claims 1, 2, 4, 5, 21–27 and 38–41 stand rejected as unpatentable under 35 U.S.C. § 103 over the combined teachings of Omer, Gale, Khazan, and Canant (Final Act. 5–17); claims 28 and 29 stand rejected as unpatentable under 35 U.S.C. § 103 over the combined teachings of Omer, Gale, Khazan, Canant, and Verna (*id.* at 18–19); claims 30, 31, and 34–37 stand rejected as unpatentable under 35 U.S.C. § 103 over the combined teachings of Omer, Khazan, and Canant (*id.* at 20–23); and

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<sup>3</sup> All reference citations are to the first named inventor only.

claims 32 and 33 stand rejected as unpatentable under 35 U.S.C. § 103 over the combined teachings of Omer, Khazan, Canant, and Verna (*id.* at 23–25).

The Examiner relies on similar combinations of references and substantially similar arguments and evidence in rejecting claims 1 and 30. Final Act. 5–11, 20–22. Appellant contests the obviousness rejection of independent claim 1 (Appeal Br. 4–6) and relies on the alleged deficiencies in that rejection with respect to Canant’s teachings to overcome the rejections of independent claim 30 and the dependent claims (*id.* at 6–7). Because we determine that reversal of the rejection of independent claim 1 is dispositive, except for our ultimate decision, we do not discuss the merits of the rejections of claims 2, 4, 5, and 21–41 further herein.<sup>4</sup> We review the appealed rejection of independent claim 1 for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). We address the rejection of claim 1 below.

## ANALYSIS

### *1. Obviousness of Claim 1 Over Omer, Gale, Khazan, and Canant*

As noted above, the Examiner rejects independent claim 1 as obvious over the combined teachings of Omer, Gale, Khazan, and Canant. Final Act. 5–11. In particular, the Examiner finds that Omer, Gale, and Khazan teach or suggest the majority of the limitations of claim 1 and that a person of ordinary skill in the art would have had reason to combine the teachings

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<sup>4</sup> Appellant argues claims 37 and 41 separately. Appeal Br. 6, 7; *see* Ans. 27. Because we reverse the Examiner’s rejections of the independent claims, we do not reach Appellant’s contentions with respect to claims 37 and 41.

of those references to achieve the recited limitations. *Id.* at 5–10. Appellant does not challenge the Examiner’s findings regarding the teachings of these references or their combination. *See* Appeal Br. 4–5.

The Examiner finds that none of Omer or Gale or Khazan teaches the final two limitations of claim 1. Final Act. 10. In particular, claim 1 concludes by reciting

wherein the at least one mobile device is configured to display a map on the display and allow identification of *a bookmarked area of the map* by the at least one user, and

wherein the data manager is configured to create model instances necessary to *automatically provide alerts to the at least one mobile device regarding the bookmarked area.*

Appeal Br. 10 (Claims App.) (emphases added). The Examiner finds, however, that Canant teaches or suggests these limitations (Final Act. 10 (citing Canant ¶¶ 23, 32, 97, 99)) and that a person of ordinary skill in the art would have had reason to combine Canant’s teachings with those of Omer, Gale, and Khazan to achieve the systems of claim 1 (*id.* at 10–11).

Appellant contends that Canant fails to teach or suggest these limitations for two reasons. Appeal Br. 4–5; Reply Br. 1–2. We find one of these reasons persuasive of Examiner error.

First, Appellant contends Canant fails to teach or suggest “identification of *a bookmarked area of the map* by the at least one user.”

Appeal Br. 5; Reply Br. 3. In particular, Appellant contends,

“[Canant’s] bookmarks may be referenced to a particular video file and offset into the file, providing the operator with a quick method of returning to points of interest in the video.” The bookmarks of Canant are, therefore, associated with a particular point in time (i.e., “offset”) in a video, and not “an area of [a] map” as recited in claim 1.

Appeal Br. 5 (quoting Canant ¶ 97; citation omitted); *see* Reply Br. 3 (“Canant teaches only that a user may identify a bookmark in a video clip, and not ‘a bookmarked area [in any] map.’”). Although Canant discloses a “synchronized map display,” Appellant contends that “the synchronized map may show a location corresponding to a bookmarked portion of the video, such synchronization does not equate to ‘allow[ing] identification of a bookmarked area of the map by the at least one user,’ as recited in the claims.” Reply Br. 3; *but see* Ans. 27 (discussing Canant ¶¶ 99, 100 describing “a Tactical Situational Awareness Map (TSAM) 224 that provides a synchronized geospatial information map display for both live and/or playback streams and integrates databases into 3D mapping”).

Second, Appellant contends Canant fails to teach or suggest “automatically provid[ing] alerts to the at least one mobile device regarding the bookmarked area.” Appeal Br. 5–6; Reply Br. 3. In particular, Appellant contends

As an initial matter, as described above Canant does not disclose a “bookmarked area,” but instead discloses a bookmarked scene in a video. In addition, Canant does not disclose any alerts that are associated with these bookmarked scenes. Rather than relying on any actual “alerts” taught in Canant, the Examiner instead points to [] descriptions of a querying capability.

Appeal Br. 5. Specifically, Appellant contends that the results of Canant’s database queries are not “alerts” and are not automatically provided to “the at least one mobile device.” *Id.* at 5–6; *but see* Ans. 27 (discussing Canant ¶¶ 66, 97, 100).

We begin our analysis with the language of the disputed limitations.  
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applies to the verbiage of the proposed claims the broadest



reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.

*In re Morris*, 127 F.3d 1048, 1053 (Fed. Cir. 1997). Although the Specification does not define “bookmark” expressly, we understand a “bookmark” to encompass marking a specific point in a document or file that a user may identify for future reference. *See* Spec. ¶¶ 94, 97; *see also*, *e.g.*, MICROSOFT COMPUTER DICTIONARY, 67 (5th ed. 2002) (“A marker inserted at a specific point in a document to which the user may wish to return for later reference.”). Similarly, the Specification does not define “alerts” expressly. Nevertheless, the Specification provides examples of “alerts.” *See* Spec. ¶¶ 84, 87, 88, Figs. 10 and 12. Referring to the Specification's Figure 10, color coded alerts are depicted on the right side of graphic user interface (GUI) 1604. *Id.* ¶ 84. Similarly, in the Specification's Figure 12, green (1802), red (1804), yellow (1806), and blue (1808) alerts are depicted in GUI 1800. *Id.* ¶ 88. These alerts are provided *automatically* to users with situation status or updates. *Id.* Thus, we understand the recited “alerts” to encompass notifying a user's mobile device of situation status or updates without the user requesting the situation status or update.

The Examiner finds that Canant teaches or suggests “**providing bookmarks with text and geo-location recorded to database and automated bookmarking of video streams containing the target.**” Final Act. 10 (quoting Canant ¶¶ 23, 32). Moreover, Canant discloses that a tactical video exploitation system (TVS) may be provided with a Tactical Digital Video Player, which “Interfaces to map applications such as Google

Earth, Envitia Maplink Pro, NASA World Wind, ArcMap, etc.” (Canant ¶¶ 18, 25) and includes the “[m]ap and video display of targets” (*id.* ¶¶ 27, 30; *see id.* ¶ 79 (discussing mapping of targets)). Canant further explains:

A TVS may be further configured in one exemplary embodiment to provide one or more of the following basic operational functions for an image sensor system: viewing, sensor control, map interaction, target management, recording, and/or encoding/routing. TVS software may be built around the concept of web services and, as such, may be configured to be inherently interoperable with other networked services such as map servers and other XML-based data interchange programs.

*Id.* ¶ 5 (emphases added); *see id.* ¶ 66 (“In the exemplary embodiment of FIG. 2A, Tactical Video Viewer (TVV) 222 may be used as the primary graphic user interface (e.g., by presenting a graphical user interface GUI on a local or remote video display) for TVS 104. In this role, TVV 222 may be configured to allow a user to display, edit, query, render, exploit, and export both still and video imagery of the TVS 104, as well as to allow the viewing of live and recorded video and still imagery.” (emphasis added)). Thus, we agree with the Examiner that Canant teaches or suggests bookmarking an area of a map, as recited in claim 1. Final Act. 10; Ans. 26–27.

Nevertheless, we agree with Appellant that the Examiner fails to show Canant teaches or suggests “automatically provid[ing] alerts to the at least one mobile device regarding the bookmarked area.” Appeal Br. 10 (Claims App.). The Examiner finds that

Canant discloses [] primary graphic user interface allow[s] a user to display, edit, query, render, exploit, and export both still and video imagery and database and query system to provide a local or remote operator with immediate access to segments of video equating to geographic locations of the collected imagery, time within the mission of the collected imagery, bookmarked scenes of interest in the collected imagery.

Ans. 27 (citing Canant ¶¶ 66, 97, 100). Nevertheless, Canant merely discloses, “[a] Query panel may also be provided by the viewer 222 to allow an user to search the archive in database 260 for stored video, stills, and bookmarks.” Canant ¶ 99; *see* Final Act. 10. We are persuaded the ability to search a database does not teach or suggest “automatically provid[ing] alerts.” *See* Appeal Br. 5–6; Ans. 26. Further, we are persuaded the ability to edit still or video imagery (Canant ¶ 66) or to annotate bookmarks (*id.* ¶ 100) does not teach or suggest “automatically provid[ing] alerts.” *See* Appeal Br. 5–6; Ans. 27. The Examiner fails to show where Canant teaches or suggests any form of “alert,” as we understand that term. Thus, we find the Examiner does not show that Canant teaches or suggests this final limitation.

Consequently, we are persuaded that the Examiner errs in rejecting claim 1, and we do not sustain the obviousness rejection of claim 1.

## 2. *The Remaining Claims*

As noted above, Appellant challenges the rejection of independent claim 30 for substantially the same reasons as claim 1. Appeal Br. 7. For the reasons given above with respect to claim 1, we also do not sustain the rejection of independent claim 30.

Each of claims 2, 4, 5, 21–29, and 31–41 depends directly from independent claim 1 or 30. *Id.* at 10–15 (Claims App.). Our reversal of the Examiner’s rejections of independent claims 1 and 30 is dispositive with respect to the dependent claims. *Id.* at 6–7; *see* Reply Br. 3. Because we are persuaded the Examiner errs with respect to the obviousness rejection of claims 1 and 30, we also are persuaded the Examiner errs with respect to the

obviousness rejections of claims 2, 4, 5, and 21–41. For this reason, we do not sustain the rejections of the dependent claims.

### DECISION

1. The Examiner errs in rejecting claims 1, 2, 4, 5, and 21–41 under 35 U.S.C. § 103 as rendered obvious over the combined teachings of Omer, Khazan, and Canant, alone or in combination with another reference or references.
2. Thus, on this record, claims 1, 2, 4, 5, and 21–41 are not unpatentable.

### CONCLUSION

For the above reasons, we reverse the Examiner’s decision rejecting claims 1, 2, 4, 5, and 21–41.

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 4, 5, 21–27, 38–41	103	Omer, Gale, Khazan, Canant		1, 2, 4, 5, 21–27, 38–41
28, 29	103	Omer, Gale, Khazan, Canant, Verna		28, 29
30, 31, 34–37	103	Omer, Khazan, Canant		30, 31, 34–37
32, 33	103	Omer, Khazan, Canant, Verna		32, 33
<b>Overall Outcome</b>				1, 2, 4, 5, 21–41

REVERSED