UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/359,079	01/23/2009	Sven D. Aspen	7784-001146/US/CPA	3731

120226 7590 03/15/2018

Patterson & Sheridan - The Boeing Company
c/o Patterson & Sheridan, LLP
24 GREENWAY PLAZA, SUITE 1600
Houston, TX 77046

EXAMINER
PAULSON, SHEETAL R.

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
03/15/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PAIR_eofficeaction@pattersonsheridan.com
PatentAdmin@boeing.com
PSDocketing@pattersonsheridan.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SVEN D. ASPEN, ANDREAS SINDLINGER, and PATRICK WIPPLINGER

Appeal 2016-007860
Application 12/359,079
Technology Center 3600

Before ST. JOHN COURTENAY III, DENISE M. POTHIER, and MATTHEW J. McNEILL, *Administrative Patent Judges*.

POTHIER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants[1,2] appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 21–31. App. Br. 1. Claims 1–20 have been canceled. *Id.* at 17 (Claims App.). We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

---

[1] Throughout this Opinion, we refer to (1) the Final Office Action (Final Act.) mailed July 10, 2015, (2) the Appeal Brief (App. Br.) filed January 11, 2016, (3) the Examiner's Answer (Ans.) mailed June 15, 2016, and (4) the Reply Brief (Reply Br.) filed August 15, 2016.

[2] The real party in interest is listed as The Boeing Company. App. Br. 3.

Invention

Appellants' invention relates to a display system, method, and computer program product "for dynamically displaying aircraft flight information." Spec., Abstract. For example, a "processor is configured to display a flight map for the aircraft on the display, to evaluate state variable(s) dynamically representing state(s) in the aircraft system environment, and dynamically modify the flight map based at least in part on the evaluation." *Id.*

Illustrative claim 25 is reproduced below:

> 25. A method of displaying context aware craft navigational information, the method comprising:
>
> receiving real-time navigational information from a state manager and displaying the real-time navigational information on a display system, wherein the state manager is in communication with: the display system, a user input component, a real-time system environment of the craft comprised of real-time airborne and ground-based information that define at least one state variable for the craft, and a data base management system that includes at least one craft-specific rule;
>
> receiving dynamic user requests for display of real time navigational information from the user input component;
>
> modifying the display of real-time navigational information in response to the received dynamic user requests; and
>
> dynamically controlling the display of the real time navigational information on the display system based on the at least one state variable for the craft and the at least one craft-specific rule.[3]

---

[3] Various amendments to the claims were submitted in this application. According to Office records, the October 7, 2015 Amendment submitted after Final Action was the entered on November 3, 2015 as part of the Advisory Action (Adv. Act.). *See* Adv. Act. 1, box 7.

The Examiner relies on the following as evidence of unpatentability:

Orf	US 7,386,374 B1	June 10, 2008
Deleris	US 8,135,502 B2	Mar. 13, 2012

The Rejections

Claims 21–31 are rejected under 35 U.S.C. § 101 as being directed to patent ineligible subject matter. Final Act. 2; Ans. 2.[4]

Claims 28 and 31 are rejected under 35 U.S.C. § 112(a) or § 112, first paragraph (pre-AIA), as failing to comply with the written description requirement. Final Act. 3–4; Ans. 3.

Claims 21–31 are rejected under 35 U.S.C. § 112(a) or § 112, first paragraph (pre-AIA), as failing to comply with the written description requirement. Final Act. 4; Ans. 3.[5]

Claims 21, 22, and 24–31 are rejected under 35 U.S.C. § 102(e) as anticipated by Deleris. Final Act. 5–7; Ans. 4–6.

Claim 23 is rejected under 35 U.S.C. § 103(a) (pre-AIA) or § 103 as unpatentable over Deleris and Orf. Final Act. 8; Ans. 7.

---

[4] The separate rejection of claims 28 and 31 under 35 U.S.C. § 101 (Final Act. 3) has been withdrawn. Ans. 7–8.

[5] The rejection of claims 21–31 under 35 U.S.C. § 112(b) or § 112, second paragraph (pre-AIA) (Final Act. 4), is repeated in the Examiner Answer (*see* Ans. 8–9). For purposes of this decision, we presume this rejection has been withdrawn because the Examiner (1) does not include the rejection in the Grounds of Rejection to be Reviewed on Appeal section (*id.* at 3), (2) discusses this rejection in the WITHDRAWN REJECTIONS section (*id.* at 8–9), and (3) does not discuss this rejection in the Response to Argument section (*see id.* at 14–15).

I. THE STATUTORY SUBJECT MATTER REJECTION

Regarding representative claim 25,[6] the Examiner states the claim is directed to an abstract idea of displaying navigational map information implemented using a generic computer performing generic functions. Final Act. 2; Ans. 9, 11–12. The Examiner further states the claim does not recite significantly more than conventional activities or the abstract idea itself. Final Act. 2; Ans. 9–10. The Examiner contends "[t]he claims do not include improvements to another technology or technical field; nor do they include improvements to the functioning of the computer itself." Ans. 11.

Appellants argue claim 25 is not directed to a judicial exception and that displaying navigational information is not abstract. App. Br. 8. Appellants also assert claim 25 recites significantly more than conventional and routine rules. *Id.* at 8–9. Appellants assert claim 25 provides improvements to the technical field of navigation display "by limiting the display of information to that which is needed in the moment and allowing for significant customization or rules[7] governing such limits on the display of information." *Id.* at 9 (citing Spec. ¶ 18). Appellants also assert claim 25 addresses a challenge particular to modern computer systems and do not pre-empt basic tools of scientific and technological work. *Id.* at 10–11 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) and *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014)).

---

[6] Appellants argue claims 21, 22, and 24–31 collectively. App. Br. 14–15. We select claim 25 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

[7] Claim 21 reproduced at page 8 of the Appeal Brief includes limitations to a "data driven logic tree to process conditional rules," which is not part of the latest set of claims entered on November 3, 2015. Adv. Act. 1.

ISSUE

Under § 101 has the Examiner erred by finding claims 21–31 are directed to patent-ineligible subject matter?

ANALYSIS

Based on the record before us, we find no error in the Examiner's rejection of claim 25. Appellants reproduce independent claim 21 to include "the state manager configured to implement at least one data driven logic tree to process conditional rules which are input using the user input . . . ." App. Br. 8. Yet, the last entered amendment of claim 21 on November 3, 2015 as reproduced in the Claims Appendix does not include a recitation to a "logic tree" or "conditional rules." Adv. Act. 1; App. Br. 17 (Claims App.). Independent claims 25 and 28 also fail to include these recitations. App. Br. 18–19 (Claims App.). Thus, some of the arguments related to how these purportedly recited features (e.g., conditional rules applied to data-drive logic trees and define logically related conditions used to control the display dynamically) are a novel approach to customize a display in real-time and do not tie up a judicial exception are unavailing. App. Br. 8–11.

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "'. . . long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *Alice*, 134 S. Ct. at 2354 (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services* v.

Prometheus Laboratories, Inc., 566 U.S. 66, 82–84 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355.

The first step in that analysis is to determine whether the claims are directed to one of those patent-ineligible concepts, such as an abstract idea. Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57. If the claims are not directed to a patent-ineligible concept, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered "individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78).

Applying the first step in the analysis, claim 25 is directed to an abstract idea of organizing human activities, such as collecting, organizing, and analyzing "context aware craft" or "real-time" navigational information in a way that is analogous to human mental work. That is, claim 25 recites a method for "displaying context aware craft navigational information" including (1) receiving and displaying real-time navigational information, (2) receiving dynamic user requests for display of real-time navigational information from the user input component, (3) modifying the display of real-time information in response to the user requests, and (4) dynamically controlling the display of real-time navigational information based on a state variable for the craft and a craft-specific rule. App. Br. 18 (Claims App.).

Such steps involving well-known steps of collecting and analyzing information, including when limited to particular content (e.g., receiving real-time navigation information and dynamic user requests and controlling the display based on a state variable and a craft-specific rule as recited in claim 25), are similar to those steps people perform in their mind and are "within the realm of abstract ideas." *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016); *see also Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2016). Moreover, "merely presenting the results of abstract processes of collecting and analyzing information, without more" (e.g., modifying the display of real-time information in response to a user request as recited) is also abstract. *Electric Power*, 830 F.3d at 1354.

As for the recitation "dynamically controlling the display of the real time navigational information on the display system based on the at least one state variable for the craft and the at least one craft-specific rule" in claim 25, we agree with the Examiner (*see* Ans. 9) that this recitation has similarities to *SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950, 954 (Fed. Cir. 2014). In *SmartGene*, the claims were directed to (1) a computing device with basic functionalities, (2) routine input, comparison, and output capabilities, and (3) evaluating and selecting information based on knowledge-based "rules," but still deemed to be directed to an abstract idea. *See id.* at 954. Claim 25 similarly involves a method for dynamically controlling the displaying context aware craft navigational information with routine input, processing, and output and selecting information based on a state variable and craft-specific rule. App. Br. 18 (Claims App.).

To the extent the recited "craft-specific rule" roots claim 25 in computer technology (*see* App. Br. 10–11), claim 25's recitations are directed to a generic computer/processor controlling a display based on a rule. App. Br. 18 (Claims App.). The Specification similarly describes the invention relates "to navigational displays and . . . to dynamically displaying navigational data for a craft such as an aircraft or water vessel." Spec. ¶ 2. The disclosure states the display can be modified based on the aircraft's state, user-provided rules (which, as discussed below, are not "craft-specific"), and an evaluation of the state and rules. *See id.* ¶¶ 6–8, 18, 20–21, 29–30. The Specification also discusses logic trees are used to specify rules for displaying data and provide context-aware display of information. *See id.* ¶¶ 26–28. But, as explained in this Opinion, these features are not the claims.

Whether or not "dynamically controlling the display of the real time navigational information on the display system based on" the state variable and a craft-specific rule as recited in claim 25 involves a computer executing an algorithm, simply reciting using a computer to execute an algorithm that can be performed entirely in the human mind or by a human does not turn a general purpose computer performing an algorithm into a new machine programmed to perform particular functions. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1374–75 (Fed. Cir. 2011). Nor have Appellants demonstrated sufficiently the Specification describes claim 25's recitations, which do not include logic trees or applying conditional rules, involve any specialized algorithm. *See* App. Br. 8–11.

Also, the focus of claim 25 is not on an improvement in (1) computer's function or operation (e.g., a particular database having a

self-referential table as discussed in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)) or (2) computers as tools (*see Electric Power*, 830 F.3d at 1354). Rather, claim 25, at best, uses an existing computer/processor as a tool for assisting in claimed method focused on abstract ideas. App. Br. 18 (Claims App.). Claim 25 also is not directed to an Internet-centric invention or a challenge specific to modern computer systems, in contrast with the claims in *DDR*. *See* App. Br. 9–10. We, thus, agree (1) claim 25 "fail[s] to provide a technical solution to any network or Internet-centric challenges" (Ans. 12), (2) the "claims here do not address problems unique to the Internet" (*id.* at 13), and (3) the claims are not "rooted in the technology in order to overcome a problem specifically arising in the computer network (or other technological) realm" (*id.*).

As for second step under the § 101 patent eligibility analysis, we agree with the Examiner claim 25 does not recite an inventive concept or significantly more than conventional and routine activities of the abstract idea itself. Final Act. 2; Ans. 9–12, 14. Above, we addressed how the claims individually and as an ordered combination recite routine elements. Furthermore, claim 25 does not recite additional elements that transform the nature of claim 25 into a patent-eligible application. App. Br. 18 (Claims App.). Claim 25 merely recites the abstract idea of receiving and displaying information, receiving user requests, and modifying information displayed in response to user requests and based on a state variable and a craft-specific rule. Appellants contend that craft-specific rules can suppress information related to taxiways that an aircraft cannot use and this is related to the technological area of "human-computer interaction (HCI)" and "intelligent management of information being displayed goes to the core of

technological improvements." Reply Br. 4. Yet, this discussion related to the rules for suppressing taxiway information is not claimed or supported by the disclosure as discussed below in more detail.

Thus, unlike *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348–49 (Fed. Cir. 2016) (*see* Reply Br. 3–4), claim 25 does not describe sufficiently improving on an existing technological process. We, therefore, determine claim 25, when considered individually and as an ordered combination, does not recite additional elements that transform the nature of the claim into a patent-eligible application.

Lastly, Appellants refer to Example 23 of the "July 2015 Update: Subject Matter Eligibility"[8] in asserting claim 25 is patent eligible. App. Br. 11; Reply Br. 3. We do not see the parallel between "claims directed to relocating/reformatting text in a window so that the text is unobscured by an overlapping" (App. Br. 11) and claim 25. Also, Example 23 includes both patent eligible subject matter (e.g., claims 1 and 4) and patent ineligible subject matter (e.g., claims 2 and 3). Claim 25 in the instant application is more akin to Example 23's claims 2 and 3, which recites calculating a scaling factor for text information based on data differences and which are indicated to be patent ineligible subject matter under 35 U.S.C. § 101. *See July 2015 Update Appendix 1: Examples*, Example 23, pp. 8, 10–11.

[8] *July 2015 Update Appendix 1: Examples*, pp. 7–12, *available at* https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of independent claim 21 and claims 22–31,[9] which are not separately argued.

II. THE LACK OF WRITTEN DESCRIPTION REJECTIONS

Claims 28 and 31 are rejected under 35 U.S.C. § 112(a) or § 112, first paragraph (pre-AIA), because the Specification does not describe a computer-readable storage medium such as to convey reasonably to one skilled in the art the inventor would have had possession of the claimed "computer-readable storage medium" recited in claim 28. Final Act. 3–4; Ans. 3.

Claims 21–31 are also rejected under 35 U.S.C. § 112(a) or § 112, first paragraph (pre-AIA), because the Specification does not describe claimed subject matter such as to convey reasonably to one skilled in the art the inventor would have had possession of the claimed "craft-specific rule" recited in claims 21, 25, and 28. Final Act. 4; Ans. 3.

ISSUES

Under § 112(a) or § 112, first paragraph (pre-AIA), has the Examiner erred by finding the Specification does not describe claimed subject matter in sufficient detail that one skilled in the art would have reasonably found the inventors had possession of:

[9] Notably, dependent claims 22–24 and 29 improperly depend from canceled claim 1. App. Br. 17, 19 (Claims App.). For purposes of this Opinion, we presume claims 22–24 and 29 depend from claim 21.

(A) "a non-transitory computer-readable storage medium" recited in claim 28 and

(B) "a data base management system that includes at least one craft-specific rule" recited in claim 21?

ANALYSIS

A. *Claims 28 and 31*

Based on the record before us, we find error in the Examiner's rejection of claim 28 and the recitation "a non-transitory computer-readable storage medium." As the Appellants explain (App. Br. 12–13), the Specification describes system 20 "for displaying aircraft flight information" and "to provide a dynamic display" that includes computer 24 having processor 28, memory 32, and display 40. Spec. ¶ 19, Fig. 1. This description of memory 32 in the disclosure supports the claimed "computer-readable storage medium" in sufficient detail that one skilled in the art can reasonably conclude the inventors had possession of the claimed invention.

B. *Claims 21–31*

Based on the record before us, we find no error in the Examiner's rejection of claims 21–31 and the recitation "craft-specific rule." Appellants argue these claims collectively (App. Br. 13), and we select independent claim 21 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellants assert paragraph 21 of the Specification explains the disputed recitation in sufficient detail that one skilled in the art would have reasonably concluded the inventors has possession of "a data base management system that includes at least one craft-specific rule" as recited

in independent claim 21, and similarly recited in independent claims 25 and 28. App. Br. 13. We disagree.

Paragraph 21 discusses system 20 "may refer to a plurality of rules and state variables in determining whether . . . to display objects on a flight map." Spec. ¶ 21. These "plurality of rules" are not (1) described as "craft-specific" rules or (2) referred to as rules specific to any craft. *Id.* Granted, the disclosure states system 20 can also include or refer to data sources 60 including "user-defined rules relating to state variable(s)" (*id.*, Fig. 1), and one such user "may include a manufacturer of the aircraft 48, an airline or other provider of the aircraft 48, and/or a pilot of the aircraft 48." *Id.*; *see also* Spec. ¶¶ 25, 27–28, Fig. 2. An aircraft manufacturer, an airline, other provider, or a pilot of aircraft may be *user*-specific (e.g., rules defined by a manufacture, an airline, other provider, or a pilot), but they are not "craft-specific" rules as recited. *See id.*

Rules defined by an aircraft manufacturer *may suggest* to one skilled in the art rules related to a specific aircraft. *See id.* Yet, "a description that merely renders the invention obvious does not satisfy the [written description] requirement." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010) (citation omitted). Appellants also provide examples of purported "craft-specific" rules, such as "the Boeing 747 could be provided with rules that suppress the display on an airport diagram of taxiways having a width of less than 75 feet." App. Br. 13. Yet, this and the other examples provided by Appellants (*id.*) are not in the disclosure. *See generally* Spec.

Nor have Appellants demonstrated sufficiently one skilled in the art would have reasonably found from the discussion of user-created rules in

paragraph 21 that the disclosure supports the recited "craft-specific rule" in claim 21. *See* App. Br. 13. Although one skilled in the art may be aware of differences in aircraft (*see id.*), Appellants have not demonstrated that one skilled in the art would have reasonably found that the inventors had possession of a "craft-specific rule" based on the Specification's description, including *manufacturer*-specific rules. *See id.* For example, one skilled in the art would have recognized a *manufacturer* makes numerous aircraft (e.g., 737, 747, and 787 by Boeing or C and CRJ series by Bombardier). Thus, a user-defined rule by a manufacturer as described in the Specification is not necessarily a "craft-specific rule" as recited, such that an ordinarily skilled artisan would have reasonably concluded the inventors had possession of the claimed invention.

Lastly, the Specification states the database management system (DBMS) 142 obtains additional aeronautical information for controlling the display, but does not describe this information as a rule related or specific to a craft. Spec. ¶ 24, Fig. 2. As such, the Specification does not describe in sufficient detail that one skilled in the art can reasonably find that the inventors had possession of the claimed "data based management system that includes at least one craft-specific rule" as recited in independent claims 21, 25, and 28.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of independent claim 21 and claims 22–31, which are not separately argued.

III. THE ANTICIPATION REJECTION OVER DELERIS

Regarding independent claim 21, the Examiner finds that Deleris discloses all its limitations, including a "state manager configured to dynamically control the display of the real time navigational information on the display system based on the at least one state variable for the craft and the at least one craft-specific rule." Final Act. 5–6 (citing Deleris 2:3–53, 4:3–53). Appellants argue Deleris does not disclose the above-quoted limitation in claim 21. App. Br. 14–15; Reply Br. 5–6.

ISSUE

Under § 102, has the Examiner erred in rejecting claim 21 by finding Deleris discloses "state manager configured to dynamically control the display of the real time navigational information on the display system based on the at least one state variable for the craft and the at least one craft-specific rule"?

ANALYSIS

Based on the record before us, we find error in the Examiner's rejection of independent claim 21. The Examiner states Deleris's craft environment (e.g., possible collision) is "at least one state variable." Ans. 15. The Examiner also explains Deleris discloses adjusting a display based on the environment and the required scaling is "at least one craft-specific rule." *Id.* (citing 6:45–56).

The Specification describes various "state variables." Spec. ¶ 20. State variables "may represent a wide variety of states including, *e.g.*, aircraft altitude, current aircraft location, direction, air speed, . . . [and]

distance to a topographical feature . . . ." *Id.* Deleris discloses anticollision system 16 for monitoring the trajectories of aircraft (e.g., means 3) and representing the positions of aircrafts on a viewing screen with the aid of altitude and distance (e.g., state variables as discussed in the Specification). Deleris 4:4–8, 54–61, 5:6–15, Fig. 1. Deleris further discloses detecting the need to change the display and scale based on analyzing a dangerous event detected by monitoring means 3. Deleris 4:4–17, 41–49, Fig. 1.

As for the recitation "craft-specific rule," we stated above that the Specification does not provide sufficient examples of or support for this recitation. Based on this understanding, one skilled in the art would not construe the rules in the Specification as "craft-specific" rules. Spec. ¶ 20 (e.g., rule indicating when to display a symbol based on an aircraft's distance to an object described as "rules relating to state variable(s)"); *see id.* ¶¶ 28–30) (e.g., auto-zooming based on rules for different stages within a mission or rule that displays a specific map when aircraft is in a certain phase and at a given velocity).

We presume that the recited "craft-specific rule" has an ordinary meaning of a rule related to a specific craft (e.g., a specific plane, boat, or car).[10] *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). We, therefore, conclude the Examiner's construction that a "craft-specific rule" as recited "relate[s] to the *operation* of the craft" is overly

[10] If prosecution continues, the Examiner should consider whether one skilled in the art would understand the boundaries of "at least one craft-specific rule" to be limited to (1) a particular craft model (*see* App. Br. 13 (discussing Boeing 737s and 747s)), (2) a particular craft series (e.g., CRJ series by Bombardier), (3) a particular type of craft (e.g., an aircraft versus a boat or car), or (4) something else (e.g., all crafts that are blue).

broad. Final Act. 4 (emphasis added). Moreover, we agree the recited "craft-specific rule" must differ from the recited "state variable" (*see* App. Br. 14), which include an aircraft's altitude, current location, direction air speed, ground speed, distance to a topological feature, weather conditions, and traffic frequency (Spec. ¶ 20). Even so, the broadly recited "craft-specific rule" is not limited to the "aircraft being flown" (Reply Br. 5) or the craft "displaying . . . a user, context aware craft navigational information during operation" recited in claim 21. App. Br. 17 (Claims App.).

Turning back to Deleris, Deleris discloses modifying display 2 (e.g., dynamically controlling) of navigational information by scaling (e.g., a rule) a display when needed. Deleris 4:18–40, 6:45–56, Fig. 1. In particular, Deleris discloses

> [P]rocessing unit **25** checks, by taking account of the current scale of the navigation screen **2**, and of the distance between the aircraft equipped with the device **1** and the intruder aircraft, whether the intruder aircraft is situated on the image displayed by the navigation screen **2**. If such is not the case, the processing unit **25** selects a scale making it possible to represent this intruder aircraft on the image displayed. . . .

Id. at 6:45–53 (*cited in* Ans. 15 (discussing this same passage)).

Deleris discloses a rule (e.g., scaling a display until an intruder aircraft is displayed on a screen) specific to a craft's status (e.g., whether or not the intruder aircraft is on the screen's display image) rather than a rule specific to a craft, such as a characteristic that defines a specific aircraft (e.g., a Boeing 747). *See id.* at 6:45–53. In particular, the aircraft's status (e.g., whether the intruder aircraft is on the screen) is determined based on a screen's scale and distance between an aircraft and an intruder aircraft—

neither factor relating to a characteristic defining a specific craft or the recited "at least one craft-specific rule" in claim 21.

For the foregoing reasons, Appellants have persuaded us of error in the rejection of (1) independent claim 21, (2) independent claims 25 and 28, which recite commensurate limitations, and (3) dependent claims 22 and 24, 26, 27, and 29–31 for similar reasons.

IV. THE OBVIOUSNESS REJECTION

Claim 23 depends from claim 21 and is rejected under 35 U.S.C. § 103(a) (pre-AIA) or § 103 as unpatentable over Deleris and Orf. Final Act. 8; Ans. 7. Orf is not relied upon to teach the above-noted deficiency. Final Act. 8. We will not sustain this rejection for the above reasons.

DECISION

We affirm the Examiner's rejections of (1) claims 21–31 under § 101, and (2) claims 21–31 under § 112(a) or § 112, first paragraph (pre-AIA).

We reverse the Examiner's rejection of (1) claims 28 and 31 under § 112(a) or § 112, first paragraph (pre-AIA) (regarding the "computer readable storage medium"), and (2) claims 21, 22, and 24–31 under § 102, and (3) claim 23 under § 103.

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED