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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/328,678	01/10/2006	Robert M. Garceau	GCSD-1780 (51454)	6572
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SUITE 1401				
ORLANDO, FL 32801				
			ART UNIT	PAPER NUMBER
			3664	
			NOTIFICATION DATE	DELIVERY MODE
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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):

creganoa@addmg.com

Office Action Summary	Application No. 11/328,678	Applicant(s) GARCEAU ET AL.	
	Examiner IAN JEN	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,4-10,12-15,17-21 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1,4-10,12-15,17-21 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 10 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. The following action is in response to the remark entered on September 1st, 2011.
2. Claims 1, 9 and 15 have been amended.
3. Claims 2, 3, 11 and 16 have been cancelled.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented 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 subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3 – 15, 17 -21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oldroyd (US Pat Pub No 2005/0220363) in view of Stossel et al (MOSAIC: A model based change detection process) and further modified by Wolfson et al (US Pat No 6920233).

As for claims 1, 10, 15, Oldroyd shows a image detecting system where a collected geospatial image from a geospatial image sensor carried by an airborne platform, image detecting system comprising: a database (Fig 1, See Reference Image Data 28; Reference Dem Database 40); an image processor operable with database to generate a reference geospatial image corresponding to the collected geospatial image (Para 0049; analysis 24; Para 0069-0070;

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Para –76, transform 56); a change detector operable with image processor to detect a change between the collected geospatial image and the reference geospatial image (Para 0099 – 0101; See Fig 1, Image match 60, match function 62);

Oldroyd does not explicitly states that an environmental condition detector operable with said change detector to detect the at least one environmental condition associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image; at least one environmental condition comprising at least one weather condition.

Stossel et al explicitly states an environmental condition detector operable with said change detector to detect the at least one environmental condition (See Page 1115, 2.2 3D Geospatial change detection; 2.3 Detection of change to tree regions) associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image (See Fig 2, processing flow for main components, Acquire image, Materials Database, Change Reporting); at least one environmental condition affected by weather condition (Page 1116, Col 1, lines 18 – 26 where weather condition is present); and environmental condition relating to at least one of image obscuration and surface reflectivity (See Page 1113 for MOSAIC for environmental detection also shown on Page 1115, 2.2 for geospatial change detection also on section 2.3 for change of tree region where on Page 1113. 2 MOSAIC overview for image detection due to obstructions and on Page 1114 for apparent reflectance due to BRDF, Facet Geometry as also shown on Figures 1 and 2 for image detection and BRDF).

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Wolfson et al explicitly states that one environmental condition comprising at least one weather condition (See Figure 3, environmental condition image is detected on Step 300; and weather image is generated based upon environmental condition on Step 312).

It would have been obvious for one of ordinary skill in the art, to modify Oldroyd et al as taught by Stossel et al for the purpose to provide a change detection system for environment condition, as taught by Stossel et al to Oldroyd et al. As further noted, Oldroyd et al and Stossel et al discloses the limitations set above but does not disclose the environmental condition as weather condition; However, Wolfson et al disclose the weather condition as the weather condition. Therefore, it would have been obvious for one of ordinary skill in the art to modify Oldroyd et al and Stossel et al as taught By Wolfson et al for the purpose of providing enhanced environment change detection system including weather condition as taught by Wolfson et al.

As for claims 3 and 11, Oldroyd does not explicitly states that environmental condition comprise at least one weather condition and at least one weather condition relates to at least one of image obscuration and surface reflectivity and at least one environmental condition comprising at least one weather condition.

Stossel et al explicitly states at least one environmental condition affected by weather condition (Page 1116, Col 1, lines 18 – 26 where weather condition is present) and at least one weather condition relates to at least one of image obscuration and surface reflectivity (See Page 1113, 2. Mosaic overview); Wolfson et al explicitly states that one environmental condition comprising at least one weather condition (See Figure 3, environmental condition image is

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detected on Step 300; and weather image is generated based upon environmental condition on Step 312).

It would have been obvious for one of ordinary skill in the art, to modify Oldroyd et al as taught by Stossel et al for the purpose to provide a change detection system for environment condition, as taught by Stossel et al to Oldroyd et al. As further noted, Oldroyd et al and Stossel et al discloses the limitations set above but does not disclose the environmental condition as weather condition; However, Wolfson et al disclose the weather condition as the weather condition. Therefore, it would have been obvious for one of ordinary skill in the art to modify Oldroyd et al and Stossel et al as taught By Wolfson et al for the purpose of providing enhanced environment change detection system including weather condition as taught by Wolfson et al.

As for claim 4, 5,6, 12, 17, 18, Oldroyd shows at least one environmental condition comprises at least one of a time of day and a time of year (Para 0011); database comprises a geospatial scene model database (Para 0031; Para 0048-0049); an environmental condition detecting system according to Claim 5 wherein geospatial scene model database comprises three-dimensional (3D) scene model data; and wherein each of the collected geospatial image and the reference geospatial image comprises respective two-dimensional (2D) image data (Para 0106; Fig 1, See Reference Image Data 28; reference orthoimage construction 44); Oldroyd does not explicitly states that environmental condition comprise at least one weather condition.

Stossel et al explicitly states at least one environmental condition affected by weather condition (Page 1116, Col 1, lines 18 – 26) and at least one weather condition relates to at least one of image obscuration and surface reflectivity (See Page 1113, 2. Mosaic overview);

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Wolfson et al explicitly states that one environmental condition comprising at least one weather condition (See Figure 3, environmental condition image is detected on Step 300; and weather image is generated based upon environmental condition on Step 312).

It would have been obvious for one of ordinary skill in the art, to modify Oldroyd et al as taught by Stossel et al for the purpose to provide a change detection system for environment condition, as taught by Stossel et al to Oldroyd et al. As further noted, Oldroyd et al and Stossel et al discloses the limitations set above but does not disclose the environmental condition as weather condition; However, Wolfson et al disclose the weather condition as the weather condition. Therefore, it would have been obvious for one of ordinary skill in the art to modify Oldroyd et al and Stossel et al as taught By Wolfson et al for the purpose of providing enhanced environment change detection system including weather condition as taught by Wolfson et al.

As for claim 7, 19, Oldroyd shows geospatial scene model database comprises at least one of terrain data, building data, and foliage data (Para 0055- 0069).

As for claim 8, 13, 20, Oldroyd shows the collected geospatial image has at least one geospatial collection value associated therewith (Para 0013- 0016; para 0075, Perspective analysis 50; perspective parameter 52); and wherein image processor generates the reference geospatial image based upon synthetically positioning a virtual geospatial image sensor within a geospatial scene model based upon the at least one geospatial collection value (Para 0049, analysis 24; Para 0069-0070,transform 56); Oldroyd does not explicitly states that environmental condition comprise at least one weather condition.

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Stossel et al explicitly states at least one environmental condition affected by weather condition (Page 1116, Col 1, lines 18 – 26) and at least one weather condition relates to at least one of image obscuration and surface reflectivity (See Page 1113, 2. Mosaic overview); Wolfson et al explicitly states that one environmental condition comprising at least one weather condition (Para 0065, 0066; Fig 8A – 8C).

It would have been obvious for one of ordinary skill in the art, to modify Oldroyd et al as taught by Stossel et al for the purpose to provide a change detection system for environment condition, as taught by Stossel et al to Oldroyd et al. As further noted, Oldroyd et al and Stossel et al discloses the limitations set above but does not disclose the environmental condition as weather condition; However, Wolfson et al disclose the weather condition as the weather condition. Therefore, it would have been obvious for one of ordinary skill in the art to modify Oldroyd et al and Stossel et al as taught By Wolfson et al for the purpose of providing enhanced environment change detection system including weather condition as taught by Wolfson et al.

As for claim 9, 14, 21, Oldroyd the at least one geospatial collection value comprises at least one of a geospatial collection position, a geospatial collection orientation, and a geospatial collection field-of-view (Para 0011, 0048); Oldroyd does not explicitly states that environmental condition comprise at least one weather condition.

Stossel et al explicitly states at least one environmental condition affected by weather condition (Page 1116, Col 1, lines 18 – 26) and at least one weather condition relates to at least one of image obscuration and surface reflectivity (See Page 1113, 2. Mosaic overview); Wolfson et al explicitly states that one environmental condition comprising at least one weather

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condition (See Figure 3, environmental condition image is detected on Step 300; and weather image is generated based upon environmental condition on Step 312).

It would have been obvious for one of ordinary skill in the art, to modify Oldroyd et al as taught by Stossel et al for the purpose to provide a change detection system for environment condition, as taught by Stossel et al to Oldroyd et al. As further noted, Oldroyd et al and Stossel et al discloses the limitations set above but does not disclose the environmental condition as weather condition; However, Wolfson et al disclose the weather condition as the weather condition. Therefore, it would have been obvious for one of ordinary skill in the art to modify Oldroyd et al and Stossel et al as taught By Wolfson et al for the purpose of providing enhanced environment change detection system including weather condition as taught by Wolfson et al.

Response to Arguments

6. In response to applicant's remark that Oldroyd modified does not show the recited claim limitation, "relating to at least one of image obscuration and surface reflectivity"; however, applicant's attention is directed to Oldroyd in view of Stossel et al and Wolfson et al where applicant newly recited claim limitation has now been addressed above.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN JEN whose telephone number is (571)270-3274. The examiner can normally be reached on Monday - Friday 9:00-6:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ian Jen/

Examiner, Art Unit 3664

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664