In re Patent Application of
GARCEAU ET AL.
Serial No. **11/328,678**
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In the Claims:

      This listing of claims replaces all prior versions
and listings of claims in the application.

      1. (Original) A environmental condition detecting
system to detect at least one environmental condition
associated with a collected geospatial image from a geospatial
image sensor carried by an airborne platform, the
environmental condition detecting system comprising:

      a database;

      an image processor cooperating with said database
for generating a reference geospatial image corresponding to
the collected geospatial image;

      a change detector cooperating with said image
processor for detecting a change between the collected
geospatial image and the reference geospatial image; and

      an environmental condition detector cooperating with
said change detector for detecting 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.

      2. (Original) An environmental condition detecting
system according to Claim 1 wherein the at least one
environmental condition comprises at least one weather
condition.

3.   (Original) An environmental condition detecting system according to Claim 2 wherein the at least one weather condition relates to at least one of image obscuration and surface reflectivity.

4.   (Original) An environmental condition detecting system according to Claim 1 wherein the at least one environmental condition comprises at least one of a time of day and a time of year.

5.   (Original) An environmental condition detecting system according to Claim 1 wherein said database comprises a geospatial scene model database.

6.   (Original) An environmental condition detecting system according to Claim 5 wherein said 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.

7.   (Original) An environmental condition detecting system according to Claim 5 wherein said geospatial scene model database comprises at least one of terrain data, building data, and foliage data.

8.   (Original) An environmental condition detecting system according to Claim 5 wherein the collected geospatial image has at least one geospatial collection value associated

therewith; and wherein said 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.

9.   (Original) An environmental condition detecting system according to Claim 8 wherein 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.

10.   (Original) A weather condition detecting system to detect at least one weather condition associated with a collected geospatial image from a geospatial image sensor carried by an airborne platform, the environmental condition detecting system comprising:
a geospatial scene model database;
an image processor cooperating with said database for generating a reference geospatial image corresponding to the collected geospatial image;
a change detector cooperating with said image processor for detecting a change between the collected geospatial image and the reference geospatial image; and
a weather condition detector cooperating with said change detector for detecting the at least one weather condition associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image.

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11.   (Original) An environmental condition detecting system according to Claim 10 wherein the at least one weather condition relates to at least one of image obscuration and surface reflectivity.

12.   (Original) An environmental condition detecting system according to Claim 10 wherein said 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.

13.   (Original) An environmental condition detecting system according to Claim 10 wherein the collected geospatial image has at least one geospatial collection value associated therewith; and wherein said 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.

14.   (Original) An environmental condition detecting system according to Claim 13 wherein 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.

15.   (Original) A environmental condition detecting method to detect at least one environmental condition associated with a collected geospatial image from a geospatial image sensor carried by an airborne platform, the environmental condition detecting method comprising:

using an image processor cooperating with a database for generating a reference geospatial image corresponding to the collected geospatial image;

detecting a change between the collected geospatial image and the reference geospatial image; and

detecting 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.

16.   (Original) An environmental condition detecting method according to Claim 15 wherein the at least one environmental condition comprises at least one weather condition.

17.   (Original) An environmental condition detecting method according to Claim 16 wherein the at least one environmental condition comprises at least one of a time of day and a time of year.

18.   (Original) An environmental condition detecting method according to Claim 15 wherein the database comprises a geospatial scene model database including three-dimensional (3D) scene model data; and wherein each of the collected

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geospatial image and the reference geospatial image comprises
respective two-dimensional (2D) image data.

19.   (Original) An environmental condition detecting
method according to Claim 18 wherein the geospatial scene
model database comprises at least one of terrain data,
building data, and foliage data.

20.   (Original) An environmental condition detecting
method according to Claim 18 wherein the collected geospatial
image has at least one geospatial collection value associated
therewith; and wherein generating the reference geospatial
image is based upon synthetically positioning a virtual
geospatial image sensor within a geospatial scene model based
upon the at least one geospatial collection value.

21.   (Original) An environmental condition detecting
method according to Claim 20 wherein 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.