

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	
GARCEAU ET AL.)	Examiner: I. JEN
)	
Serial No. 11/328,678)	Art Unit: 3664
)	
Filing Date: JANUARY 10, 2006)	
)	Attorney Docket No.
For: ENVIRONMENTAL CONDITION)	GCSD-1780 (51454)
DETECTING SYSTEM USING)	
GEOSPATIAL IMAGES AND)	
ASSOCIATED METHODS)	
)	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the final Office Action of November 10, 2010, and in connection with the Notice of Appeal filed concurrently herewith, please consider the remarks set out below.

REMARKS

Based upon the arguments presented below, Applicants respectfully request the Pre-Appeal Brief Conference Panel reconsider and withdraw the Examiner's rejections of the claims.

I. The Claimed Invention

Independent Claim 1, for example, is directed to an 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 at least one environmental condition comprises at least one weather condition. The environmental condition detecting system comprises a database, and an image processor operable with the database to generate a reference geospatial image corresponding to the collected geospatial image. The environmental condition detecting system further includes a change detector operable with the image processor to detect a change between the collected geospatial image and the reference geospatial image, and an environmental condition detector operable with the change detector to detect the environmental condition associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image.

II. The Claims Are Patentable Invention

The Examiner rejected independent Claims 1, 10, and 15 over Oldroyd in view of Stossel et al. and Daly. Oldroyd discloses a system for automatic image registration that includes a sensor collecting imagery from a mobile platform. The sensor also collects sensing parameters, e.g. field of view, resolution, and azimuth, and platform parameters.¹ The system

¹ (Paragraph 48).

also includes a reference database for storing reference images. The system extracts a “chip” from the reference images to compare to the corresponding collected image. The chip is warped or distorted to conform to the known geometry of the collected image, the distortion mimicking the perspective of the sensor in the collected image.²

The Examiner correctly notes that Oldroyd fails to disclose 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, as recited by independent Claim 1, for example. The Examiner looks to Stossel et al. to supply this deficiency of Oldroyd.

Stossel et al. discloses a change detection system that compares a collected image with a synthetic image generated from a model database. The system detects changes in vegetation, i.e. whether trees have been removed in the collected image.³

The Examiner correctly notes that Oldroyd and Stossel et al. each fails to disclose the environmental condition being a weather condition, and he looks to Daly for this deficiency. Daly discloses a weather prediction system that uses overlapped time lapsed radar images of weather systems to predict the weather.

Applicants submit that the proposed combination of prior art references fails to disclose or fairly suggest each and every feature of the claimed invention. In particular, none of the applied prior art references discloses an environmental condition detector operable with the change detector to detect the environmental condition, which comprises a weather condition, associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image, as recited by independent Claim 1, for example. Quite differently, the limited teachings of Daly simply relate to predicting the

² (Paragraphs 37-38).

³ (§§ 2.2-2.3).

movement of weather systems using 2D radar images.⁴ Daly does not disclose detecting the weather condition associated with the collected geospatial image based upon the change between the collected geospatial image and the reference geospatial image, as recited in the independent claims.

Moreover, Applicants submit that the skilled person would be taught away from such a selective combination of the prior art references because it represents a substantial modification. Indeed, the skilled person would incur undue burden trying to modify the weather prediction teachings of Daly, which have nothing to do with change detection, to work in the unrelated image registration system of Stossel et al. or the unrelated change detection system Oldroyd et al.

Moreover, the proffered rationale to combine Daly into Oldroyd, i.e. providing enhanced environment change detection system including weather condition as taught by Daly, is improper for two reasons. One, Daly is not related to change detection between geospatial images, but relates differently to predicting movement of weather systems. So, Applicants submit that the skilled person would not look to Daly for enhanced change detection purposes. Two, this rationale also appears to be a *petitio principii* (begging the question) logical fallacy. Succinctly, the Examiner offers that the skilled person will modify Oldroyd with an unrelated weather prediction reference because that same skilled person wants to enhance the primary reference.

Accordingly, it is submitted that independent Claims 1 and 15 are patentable over the prior art. Independent Claim 10 is similar to these claims and is patentable for similar rationale. Their respective dependent claims, which recite yet further distinguishing features, are also patentable over the prior art and require no further discussion herein.

⁴ (Paragraphs 65-66).

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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jack G. Abid', is written over a horizontal line.

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