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**EX PARTE REEXAM**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
CENTRAL REEXAMINATION UNIT

<i>Ex parte</i> Reexamination of	:	
U.S. Patent 6,064,970	:	
	:	
Robert J. McMillan, et al.	:	Confirmation No. 4116
	:	
Control No. 90/011,252	:	Examiner: Karin M. Reichle
	:	
Filing Date: August 17, 1998	:	Group Art Unit: 3992
	:	
For: MOTOR VEHICLE MONITORING SYSTEM FOR	:	Attorney Docket No. 12741-32
DETERMINING A COST OF INSURANCE	:	

**RESPONSE TO OFFICE ACTION**

In response to the Advisory Action mailed August 26, 2011, and the Interview Summary mailed September 14, 2011, please enter the amendments below. The amendments are presented to distinguish the claimed inventions from the prior art or in response to the pending rejections.

Reexamination Control No. 90/011,252  
U.S. Patent 6,064,970

Atty. Dkt. No. 12741-32  
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## AMENDMENTS TO THE CLAIMS

The listing of the claims replaces all prior versions.

1. (amended) A method of generating a database comprising data elements representative of operator or vehicle driving characteristics, the method comprising:

monitoring a plurality of the data elements representative of an operating state of a vehicle or an action of the operator during a selected time period; [and,]

recording selected ones of the plurality of data elements into the database when said ones are determined to be appropriate for recording relative to determining a cost of insurance for the vehicle during the selected time period, said ones including, a time and location of vehicle operation and a corresponding log of vehicle speed for the time and location; and

generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics as represented by the recorded data elements.

2. (cancelled).

3. (amended) The [database] method as defined in claim 1 [2] wherein the data elements comprise raw data elements, derived data elements and calculated data elements.

4. (amended) A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating an initial operator profile;

generating an insured profile for the vehicle operator prior to monitoring any of the vehicle operator's driving characteristics, in which the insured profile includes limits and deductibles, for determining a cost of vehicle insurance;

monitoring the vehicle operator's driving characteristics during the selected period; and

deciding a total cost of vehicle insurance for the period based upon the [operating] vehicle operator's driving characteristics monitored in that period, the insured profile, and a base cost of insurance.

5. (amended) A method of determining a cost of vehicle insurance for a selected period based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics during said period, whereby the cost is adjustable by relating the driving characteristics to predetermined safety standards that are related to a safe operation of a vehicle, the method comprising:

- determining an initial insured profile, prior to monitoring any data elements representative of an operating state of the vehicle or an action of a vehicle operator, and a base cost of vehicle insurance based on said insured profile, in which said insured profile includes limits and deductibles;
- monitoring a plurality of data elements representative of [an] the operating state of [a] the vehicle or [an] the action of the vehicle operator during the selected period;
- recording selected ones of the plurality of data elements when said ones are determined to have a preselected relationship to the safety standards;
- consolidating said selected ones for identifying a surcharge or discount to be applied to the base cost;

and,

- producing a final cost of vehicle insurance for the selected period from the base cost and the surcharge or discount.

6. (amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

- extracting one or more data elements by a computer programmed to monitor sensor data from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period;
- analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group of elements; and,
- correlating the group data values to preset values in a second memory and generating an output data value based on the correlation wherein the output data value is used to compute an insurance rating for the vehicle that is based on an actuarial class of insurance, which groups operators or vehicles having a similar risk characteristic and which represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, [FOR] for the data collection period.

7. (original) The method according to claim 6, further including the steps of:

determining if the one or more data elements indicate one or more predetermined triggering events, where if the determination is positive, correlating the one or more data elements to one or more types of triggering events stored in a third memory; and,

storing and transmitting a signal corresponding to the determined triggering event to a receiving system.

8. (original) The method according to claim 6, further including the steps of:

determining if the one or more data elements indicate one or more predetermined triggering events, where if the determination is positive, correlating the one or more data elements to one or more types of triggering events stored in a third memory; and,

storing or transmitting a signal corresponding to the determined triggering event to a receiving system.

9. (original) The method as defined in claim 6 wherein the output data value is additionally used for computing an insurance rating for the vehicle for a future data collection period.

10. (original) The method according to claim 6, further comprising the steps of:

using safety or other actuarial standard values as the preset values; and,  
generating an adjusted insurance cost as the output data value.

11. (original) The method according to claim 10, further comprising the steps of:

using location and time as the one or more data elements which are compared to the safety or other actuarial standard values to generate the adjusted insurance cost.

12. (original) The method according to claim 11 wherein:

the adjusted insurance cost can be for a prospective or retrospective basis.

13. (original) The method according to claim 6, further comprising the steps of:

using safety or other actuarial standard values as the preset values; and,  
generating an adjusted underwriting cost as the output data value.

14. (original) The method according to claim 13, further comprising the steps of:  
using location and time as the one or more data elements which are compared to the safety or other actuarial standard values to generate the adjusted underwriting cost.

15. (original) The method according to claim 14 wherein:  
the adjusted underwriting cost can be for a prospective or retrospective basis.

16. (cancelled).

17. (twice amended) The method according to claim 6, further comprising:  
determining a location of the vehicle from vehicle tracking navigation signals; and  
storing the location of the vehicle in the first memory when the one or more data elements are stored.

18. (twice amended) The method according to claim 6, further comprising storing a time or date when the one or more data elements are stored.

19. (cancelled).

20. (twice amended) The method according to claim 6, further comprising:  
calculating a rate of acceleration of the vehicle based on the one or more data elements; and  
determining whether the rate of acceleration would result in a surcharge or discount during an insurance billing process.

21. (cancelled).

22. (twice amended) The method according to claim 6, further comprising:  
recording a number of excessive or sudden acceleration events during the data collection period.

23. (twice amended) The method according to claim 6, further comprising:  
monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data.

24. (twice amended) The method according to claim 6, further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data; and

determining whether the rate of braking would result in a surcharge or discount during an insurance billing process.

25. (twice amended) The method according to claim 6, further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data;

determining whether the rate of braking has a preselected relationship to a predetermined safety standard; and

recording the rate of braking in the first memory in response to determining that the rate of braking has the preselected relationship to the safety standard.

26. (twice amended) The method according to claim 6, further comprising:

recording a number of sudden braking events or hard braking situations during the data collection period.

27. (twice amended) The method according to claim 6, further comprising:

determining a location of the vehicle through navigation signals;

monitoring and recording speed data associated with the location of the vehicle through the computer programmed to monitor sensor data;

identifying a predetermined speed limit associated with the location of the vehicle; and

comparing the speed data to the predetermined speed limit to determine that the speed data indicates an occurrence of an excessive speed event above the predetermined speed limit.

28. (previously presented) The method according to claim 27, further comprising measuring a time duration of the excessive speed event above the predetermined speed limit.

29. (twice amended) The method according to claim 6, further comprising:

determining a location of the vehicle through navigation signals;

monitoring and recording speed data associated with the location of the vehicle through the

computer programmed to monitor sensor data;

extracting speed limit data associated with the location of the vehicle from a computer database;

comparing the speed data to the speed limit data to determine whether the speed data indicates an occurrence of an excessive speed event above the speed limit data; and

recording the speed data in the first memory in response to determining that the speed data indicates an occurrence of an excessive speed event above the speed limit data.

30 - 31. (cancelled).

32. (twice amended) The method according to claim 6, further comprising:

monitoring time of day driving data associated with the vehicle;

determining an amount of time that the vehicle is driven at high risk times; and

determining an insurance cost based on the amount of time that the vehicle is driven at high risk times.

33. (cancelled).

34. (twice amended) The method according to claim 6, further comprising:

monitoring driving route data associated with a location of the vehicle;

determining an amount of time that the vehicle is driven in high risk locations; and

determining an insurance cost based on the amount of time that the vehicle is driven in high risk locations.

35. (twice amended) The method according to claim 6, further comprising:

recording a lateral acceleration of the vehicle.

36 - 38. (cancelled).

39. (twice amended) The method according to claim 6, further comprising prospectively setting an insurance cost associated with the vehicle based on at least one of the one or more data elements.

40. (cancelled).

41. (twice amended) The method according to claim 6, further comprising:

using one or more of the one or more data elements to determine the actuarial class of insurance associated with the vehicle; and

using one or more of the one or more data elements to determine a surcharge or discount to be applied to a base cost of insurance associated with the vehicle.

42 - 48. (cancelled).

49. (twice amended) The method according to claim 6, further comprising:

determining acceleration data associated with the vehicle based on at least one of the one or more data elements; and

determining the actuarial class of insurance based on the acceleration data.

50. (twice amended) The method according to claim 6, further comprising:

determining braking data associated with the vehicle based on at least one of the one or more data elements; and

determining the actuarial class of insurance based on the braking data.

51. (twice amended) The method according to claim 6, wherein the computer is an on-board computer comprising a computer processor and computer memory.

52. (previously presented) The method according to claim 6, wherein the step of extracting comprises communicating one or more raw data elements to a computer through an on-board diagnostics (OBD) connector of the vehicle.

53. (previously presented) The method according to claim 6, wherein the at least one sensor comprises an in-vehicle sensor in operative connection with a data bus of the vehicle, and wherein the step of extracting comprises monitoring the at least one operating state of the vehicle through the at least one in-vehicle sensor.



54. (previously presented) The method according to claim 6, wherein the at least one sensor comprises a power train sensor coupled with the vehicle, an in-vehicle electrical sensor coupled to the vehicle, and an in-vehicle body sensor coupled with the vehicle;

wherein the one or more data elements comprise a first data element, a second data element, and a third data element;

wherein the step of extracting comprises:

extracting the first data element from the power train sensor coupled with the vehicle;

extracting the second data element from the in-vehicle electrical sensor coupled to the vehicle;

and

extracting the third data element from the in-vehicle body sensor coupled with the vehicle.

55. (previously presented) The method according to claim 6, further comprising:

analyzing the one or more data elements to identify a trigger event requiring additional action;

and

transmitting a location of the vehicle by an on-board computer to a remote control center in response to determining that the one or more data elements comprise the trigger event.

56 - 61. (cancelled).

62. (amended) The method according to claim 6, further comprising generating an insurance cost based on at least one of the one or more data elements and the actuarial class of insurance.

63. (cancelled).

64. (twice amended) The method according to claim 62 where the insurance cost is for a prospective or retrospective basis.

65 - 67. (cancelled).

68. (twice amended) The method according to claim 6, further comprising:

calculating a distance traveled by the vehicle based on at least one of the one or more data elements extracted from the at least one sensor;

determining speed data associated with the vehicle based on at least one of the one or more data elements;

recording a rate of change in vehicle speed with respect to time based on at least one of the one or more data elements extracted from the at least one sensor; and

processing the distance traveled, the rate of change in vehicle speed with respect to time, and the speed data to compute the insurance rating for the vehicle.

69. (previously presented) The method according to claim 68, further comprising:

monitoring time of day driving data associated with the vehicle; and

processing the time of day driving data to compute the insurance rating for the vehicle.

70. (twice amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

extracting one or more data elements by an on-board computer from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period;

analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group of elements;

correlating the group data values to preset values related to safety standards in a second memory and generating an output data value based on the correlation; and

computing an insurance rating based upon the output data value for the vehicle for the data collection period, in which the insurance rating is based on an actuarial class of insurance that represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, and setting prospective insurance premiums based on the actuarial class.

71 - 75. (cancelled).

76. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a discount, and wherein producing the final cost of vehicle insurance comprises applying the discount to the base cost of vehicle insurance.

77. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a surcharge, and wherein producing the final cost of vehicle insurance comprises applying the surcharge to the base cost of vehicle insurance.

78 - 79. (cancelled).

80. (amended) The method according to claim 6, further comprising:

determining speed data associated with the vehicle based on at least one of the one or more data elements;

identifying a predetermined speed limit;

comparing the speed data to the predetermined speed limit to determine that the speed data indicates an occurrence of an excessive speed event above the predetermined speed limit;

measuring an amount of time that a speed of the vehicle is above the predetermined speed limit;

and

computing the insurance rating for the vehicle based on the amount of time that the speed of the vehicle is above the predetermined speed limit.

## INTRODUCTION

The Patent Owner appreciates the graciousness and the helpful suggestions made by the Examiners during our September 13, 2011 telephone interview. This response is an effort to advance prosecution in view of the agreements reached and expressed recognition offered in the Advisory Action. This response presents the amendments to claims 4 and 5 that were suggested by the Examiners during the interview. Since agreement was reached with respect to claims 4 and 5, no further discussion of these claims is presented. This response also presents amendments and written arguments supporting claims 1, 6, and 70<sup>1</sup>.

### COMMENTS REGARDING INTERVIEW DISCUSSION OF “ACTUARIAL CLASS”

During the telephone interview, it was discussed (and reserved for later consideration) whether the specification supports the inclusion of the language “which group operators or vehicles having a similar risk characteristic,” within the phrase “generating actuarial classes of insurance, . . . , from actual driving characteristics as represented by the recorded data elements” in claim 1. Agreement was reached that there is support in the specification for “generating actuarial classes of insurance from actual driving characteristics as represented by the recorded data elements.” Thus, the only remaining question is whether there is support for the recited definition of an “actuarial class” as something that “groups operators or vehicles having a similar risk characteristic.” As discussed during the interview, this

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<sup>1</sup> Claim 70 adopts the language that the Examiner tentatively agrees is supported in the specification (i.e., that the actuarial class of insurance represents actual driving characteristics of the vehicle monitored and recorded) and adopts the Examiner’s recognition that the disclosed actuarial classes determine a rating (e.g., vehicle or operator) and determine a prospective setting of insurance premiums. For example, the Advisory Action states that “the insurance rating system of '970 generating/setting new (i.e. not preexisting nor preset) actuarial classes and operator profiles relative thereto based upon/derived or developed from actual/current driving characteristics of a monitored vehicle or operator represented by data elements . . . for determining rating (i.e., the vehicle or operator risk) and vehicle insurance costs (retrospective adjustment or prospective setting of premiums) of such vehicle or operator so monitored and recorded.” 2011-08-26 Advisory Action.

definition is supported by the term's usage in the specification as well as the ordinary meaning of the term in the insurance industry.

First, the specification supports the claimed "actuarial class" definition. The specification explains that the subject new insurance rating system retrospectively adjusts/prospectively sets premiums based on data derived from motor vehicle operational characteristics and driver behavior through the generation of new actuarial classes determined from such characteristics and behavior. Col. 5, lines 34-38. The specification teaches that the claimed "actuarial classes" are new because they are not based solely on past realized losses (like the conventional classes based solely on data gathered from past applicant interviews or existing public records that are not verifiable). Col. 2, lines 38-53. Instead, the new actuarial classes are based on actual driving characteristics. Col. 3, lines 45-50. These passages explain how an actuarial class is determined (e.g., for the subject insurance rating system, it is based on actual driving characteristics), while other passages answer the question of what is an actuarial class. For example, the specification explains that an actuarial class is a grouping of vehicles/drivers (col. 1, lines 28-30), where a specific vehicle/driver is placed into that group based on having a similar risk characteristic as the other vehicles/drivers that would be placed into that group (col. 1, lines 53-58; col. 2, lines 13-21; col. 3, lines 12-18; col. 4, lines 27-57). Thus, the specification supports the claimed definition of an "actuarial class" as something that "groups operators or vehicles having a similar risk characteristic."

Second, the ordinary meaning of "actuarial class" in the insurance industry supports the claimed definition. The Federal Circuit has highlighted the importance of considering the views of persons of skill in the art, by stating that "claim language should be read in light of the specification *as it would be interpreted by one of ordinary skill in the art.*"<sup>2</sup> Two persons skilled in the art have done just that and provided declarations explaining their understanding of the term "actuarial class" as it is used in the

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<sup>2</sup> *In Sneed*, 710 F.2d 1544, 1548 (Fed. Cir. 1983); see *Phillips v. AWH Corporation*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

specification and claims. Specifically, Beth Vecchioli and Robert McMillan provided declarations that were attached as Exhibits 1 and 2 to Patent Owner's Response to Office Action filed on April 6, 2011. These declarations show that persons of ordinary skill in the industry view the term "actuarial class," as used in the context of the present application, as a group of individuals or vehicles having similar risk characteristics. Their views are supported not only by their personal experiences but also by technical dictionaries used in the insurance industry (e.g., the "Glossary of Insurance Terms" and the "Dictionary of Insurance Terms", which are also provided as an exhibit to Patent Owner's Response to Office Action filed on April 6, 2011), as explained in their respective declarations. Furthermore, the declarants' views are consistent with what is already shown in the intrinsic record: an "actuarial class" is something that "groups operators or vehicles having a similar risk characteristic."

#### **ARGUMENTS**

Independent claims 1, 6, and 70 stand rejected under 35 U.S.C. 103 as being unpatentable over Bouchard ('079), in view of Kosaka ('868) and Black Magic. These claims are directed to generating a database or monitoring a vehicle or driver. Claim 1 recites generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics as represented by the recorded data elements. Claim 6 recites that the claimed output data value is used to compute an insurance rating for the vehicle that is based on an actuarial class of insurance, which groups operators or vehicles having a similar risk characteristic and which represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, for the data collection period. Claim 70 recites computing an insurance rating based upon the output data value for the vehicle for the data collection period, in which the insurance rating is based on an actuarial class of insurance that represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, and setting prospective insurance premiums based on the actuarial class.

Bouchard in view of Kosaka and Black Magic *does not generate* actuarial classes of insurance; Bouchard in view of Kosaka and Black Magic *does not group* individuals or vehicles having a similar risk characteristic; Bouchard in view of Kosaka and Black Magic *does not compute* an insurance rating based on an actuarial class of insurance, which represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor; and Bouchard in view of Kosaka and Black Magic *does not set* prospective insurance premiums based on the actuarial class of insurance.

The '079 patent discloses an event recording apparatus (ERA) that records selectable vehicle performance, operational status, and/or environment information. The ERA records information useful for accident analysis and driver fitness evaluation. In the preferred embodiment, the information that is recorded is also used to determine a baseline performance standard based on the driver's own past performance against which a driver's present performance can be measured. '079 Patent at col. 5, lines 57-63 (emphasis added). The "ERA and the driver fitness evaluation system generates a profile of the driver based upon the information that is stored in the ERA." *Id.* at col. 6, lines 13-15 (emphasis added).

The '079 Patent further explains:

The system processor monitors each of the external conditions and activities that are relevant to determining the fitness of the driver to operate the vehicle. In the preferred embodiment of the present invention, if driving performance is found to be below the individual standard calculated for that particular driver at any time during a trip, the driver is alerted to the fact that driving performance is not up to the calculated individual minimum standard. If the driver's performance continues to degrade (or, in an alternative embodiment, does not improve), an indication of the driver's performance is communicated to a remote site to alert a dispatcher or controller. If the driver's performance degrades still further, the vehicle ceases operating after a sufficient warning is provided to the driver that such action is imminent. Each step of the process, along with the data that is collected at each step of the process, is recorded in the ERA. *Id.* at col. 6, lines 16-32 (emphasis added).

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By selecting appropriate outputs from the sensors and radar system which have been recorded in the ERA, (which may include the outputs recorded during past and present trips) a profile of the driver is formed. The driver's performance over a recent period of time is compared to a standard derived from the personal profile calculated using the driver's past performance. The results of the comparison are used to determine the driver's current fitness to operate a vehicle. In the preferred embodiment of the present invention, if the driver's performance at any time during a

trip is found to be below the personal standard calculated for that driver, the driver is alerted that driving performance is not up to the driver's personal standard. *Id.* at col. 9, line 59-col. 10, line 4 (emphasis added).

The '079 Patent further discloses that the information recorded in the ERA may be accessed by a microcontroller and applied to a fitness algorithm which (1) generates a *personalized performance standard* for a driver associated with the ERA, and (2) *compares the driver's performance* over a recent and relatively short period of time to the driver's own personalized performance standard. The flow chart of the fitness algorithm shown in FIG. 18 shows the various *personalized profiles* that are evaluated. *See Id.* at col. 29, line 67-col. 31, line 37. These personalized profiles include characterizations of the history of the throttle, speed, headway, etc. *Id.* at col. 30, lines 29-65.

Claim 7 of the '079 Patent uses "classes" to initiate an action or operation that takes place when a driver designation occurs. That action or operation takes place when a driver's own performance is compared to his/her past performance. Surely, there are many self-rated designations that can describe a driver's performance. But those designations, like the ones in the '079 Patent, are not actuarial classes of insurance. The personal performance classifications of claim 7 do not group operators or vehicles having similar risk characteristics. Instead, the designations alert drivers, alert drivers and others, shut down vehicles, or cause no consequence. No groupings of more than one individual or vehicle are generated by claim 7 or the '079 disclosure. No insurance ratings *based on* an actuarial class of insurance are created by claim 7 or the '079 disclosure. No future premiums and insurance ratings *based on* an actuarial class of insurance are created by claim 7 or the '079 disclosure. And no future premiums, and insurance ratings, and actuarial classes are *based on* actual driving characteristics are created by claim 7 or the '079 disclosure. At most, claim 7 designates a single driver's activity to a non-descript personal class (i.e., first, second, third, and fourth) that results in a generic action or operation. Even under a broadest reasonable construction such *conditional acts* do not disclose the claimed limitations.



Similarly, Kosaka does not rely on or generate actuarial classes (e.g., groupings of vehicles or drivers having a similar risk characteristic) of insurance from actual driving characteristics; does not establish an insurance rating based on an actuarial class of insurance, or describe prospectively setting insurance premiums based on an actuarial class; or generate actuarial classes, an insurance rating, and a future insurance premium based on actual driving characteristics. In Kosaka the detection and assessment of risk may occur through fuzzy logic, which dictionaries define as vague concepts and inexact decision-making processes<sup>3</sup> and Kosaka recognizes as vague empirical knowledge.<sup>4</sup> Kosaka at pg. 4, lines 18-24. Kosaka further discloses that the:

[d]etection of states contributing to risk and calculation of risk evaluation values by fuzzy logic were carried out in real time using an external sensor and internal sensor, but the risk evaluation values also may be determined subsequently, or the change in insurance premium may be calculated subsequently from the determined risk evaluation values. In addition, fuzzy logic was used as the means for determining risk evaluation values in this example of embodiment, but determination may be carried out without using fuzzy logic. Calculation may also be carried out using a common insurance table. *Id.* at pg. 6, lines 39-56.

While Kosaka does not define the term “common insurance table,” the ’970 Patent teaches that the generation of actuarial insurance classes from actual monitored and recorded driving characteristics *are not* a common insurance table. Col. 3, lines 45-50. Furthermore, the ’970 Patent even describes the drawbacks of conventional methods:

A principal problem with such conventional insurance determination systems is that much of the data gathered from the applicant in the interview is not verifiable, and even existing public records contain only minimal information, much of which has little relevance towards an assessment of the likelihood of a claim subsequently occurring. In other words, current rating systems are primarily based on past realized losses. None of the data obtained through conventional systems necessarily reliably predicts the manner or safety of future operation of the vehicle. *Id.* at col. 2, lines 38-47.

Since Black Magic does not disclose generating actuarial classes from actual driving characteristics, the

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<sup>3</sup> *Jargon - An Informal Dictionary of Computer Terms*, 1993; Response to Office Action, Attachment 4 (April 6, 2011).

<sup>4</sup> A recent Board decision ruled that a failure to show how fuzzy logic implements a concept, like a rule, based on a pattern of values is a reversible error. *In re Burdick*, Appeal 2009-012414, Serial No. 10/386,097, Tech Center 2100, Decided September 13, 2011.

Patent Owner respectfully submits that: the claimed actuarial classes generated from actual driving characteristics is not disclosed or suggested in Bouchard, in view of Kosaka and Black Magic and that the determination of a future insurance premium and/or an insurance rating from the claimed actuarial classes, each of which are based on actual driving characteristics, is not disclosed or taught in Bouchard, in view of Kosaka and Black Magic. Therefore, the Patent Owner respectfully requests reconsideration and withdrawal of the rejection of independent claims 1, 6, and 70 and dependent claims 3, and 7-15, 17, 18, 20, 22-29, 32, 34, 35, 39, 41, 49-55, 62, 64, 68-70, 76, 77, and 80.

### 112 SECOND PARAGRAPH REJECTIONS

To address the Examiner's concerns that certain claim language is indefinite, the Patent Owner amended the claims, provides explanations, and cancelled over half of the added claims (34). If more clarification or amendments are needed, the Patent Owner accepts the Examiner's offer of another interview that may serve to develop and clarify the issues, lead to a mutual understanding between the Examiner and the Patent Owner, and provide a mutual opportunity between the parties to suggest improved claim language that would overcome the rejection under §112 2nd paragraph. *See* Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. § 112 and for Treatment of Related Issues in Patent Applications, Federal Register / Vol. 76, No. 27, at 7169-70 (February 2, 2011) (encouraging examiners to initiate interviews if an interview can provide a benefit to an applicant attempting to overcome an indefiniteness rejection). To address the essence of some rejections, the responses below directly answer the questions presented in the Office Action.

A. Claim 17: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 17 *further requires* storing a location of the vehicle in the first memory *when the* one or more data elements are stored in the first memory by claim 6. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

B. Claim 18: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 18 *further requires* storing a time or date in the first memory *when* the one or more data elements are stored in the first memory by claim 6. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

C. Claim 20: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 20 requires all of the acts recited in claim 6 and *further requires* calculating a rate of acceleration of the vehicle based on the one or more data elements. It *also requires* determining whether the rate of acceleration would result in a surcharge or discount during an insurance billing process. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

D. Claim 22: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent describes recording excessive rates of acceleration/sudden acceleration events during the data collection period. Office Action at 63, (June 14, 2011). In view of this recognition and the pending amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

E. Claim 23: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording a rate of braking. *See* Office Action at 63; '970 Patent, col. 6, lines 29-31, and 42. The disclosure also teaches that a computer monitors and records data generated by the various sensors, including the rate of braking. *Id.* at col. 6, lines 46-48 and lines 29-30. In view of the amendment to claim 23, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

F. Claim 24: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 24 requires all of the acts recited in claim 6 and *further requires* monitoring

a rate of braking by an on-board computer that monitors and records various sensors. *Id.* at col. 6, lines 46-48. It *also requires* determining whether the rate of braking would result in a surcharge or discount during an insurance billing process. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

G. Claim 25: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording a rate of braking. Office Action at 63; '970 Patent, col. 6, lines 29-31, and 42. The Office Action further recognizes that the monitoring and recording is related to safe operations. Office Action at 67. The disclosure teaches that a computer monitors and records the data generated by the various sensors, including the rate of braking. '970 Patent at col. 6, lines 46-48 and lines 29-30 and line 41. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

H. Claim 26: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent describes recording excessive hard braking situations and the number of braking situations. *See* Office Action at 68. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

I. Claim 27: The Patent Owner submits that the rejection is obviated by appropriate amendment. The Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording speed data, monitoring and recording vehicle speed in excess of predetermined speed limits . . . in combination with location data. Office Action at 70; '970 Patent col. 8, lines 46-52. In view of this recognition and the pending amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

J. Claim 28: The Patent Owner submits that the rejection is obviated by appropriate

amendment. For the reasons provided with respect to claim 27 and in view of the pending amendment to claim 28, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

K. Claim 29: The Patent Owner submits that the rejection is obviated by appropriate amendment. The Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording speed data, monitoring and recording vehicle speed in excess of predetermined speed limits in combination with location data, and the recording of time duration of speeds in the excessive limits. Office Action at 70; '970 Patent col. 8, lines 46-52. Further, it is appreciated that the Office Action recognizes that the '970 Patent discloses access to speed limits stored in a computer database. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

L. Claim 32: The Office Action's indefiniteness rejection of claim 32 may be summarized by questions presented in the Office Action. First, the Office Action asks whether the claim language at its broadest reasonable interpretation requires these steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 32 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 32 uses the "further comprising" transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6.

Second, the Office Action asks whether the claim language at its broadest reasonable interpretation requires determination of an indication of an occurrence of an event or determination of an indication of a time of an occurrence of an event. The Patent Owner submits that this issue has been obviated by appropriate amendment. Amended claim 32 requires determining an amount of time that the vehicle is driven at high risk times and determining an insurance cost based on the amount of time that the vehicle is driven at high risk times. Support for this claim language can be found at least at col. 4, lines 27-39; col. 4, line 52 to col. 5, line 1; and col. 6, lines 24-40. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

M. Claim 34: The Office Action's indefiniteness rejection of claim 34 may be summarized by questions presented in the Office Action. First, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 34 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 34 uses the "further comprising" transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6.

Second, the Office Action asks whether the claim language at its broadest reasonable interpretation requires determination of an indication of an occurrence of an event or determination of an indication of a location of an occurrence of an event. The Patent Owner submits that this issue has been obviated by appropriate amendment. Amended claim 34 requires determining an amount of time that the vehicle is driven in high risk locations and determining an insurance cost based on the amount of time that the vehicle is driven in high risk locations. Support for this claim language can be found at least at col. 4, lines 27-39; col. 4, line 52 to col. 5, line 1; and col. 6, lines 24-40. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

N. Claim 35: The Office Action's indefiniteness rejection of claim 35 may be summarized by questions presented in the Office Action. First, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 35 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 35 uses the "further comprising" transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6.

Second, the Office Action asks whether the claim language at its broadest reasonable interpretation requires lateral acceleration to be based on raw data elements or any data elements. The Patent Owner submits that this issue has been obviated by appropriate amendment. Amended claim 35 requires recording a lateral acceleration of the vehicle. Support for this claim language can be found at

least at col. 7, lines 21-26 and column 8, line 11. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

O. Claim 39: The Office Action's indefiniteness rejection of claim 39 may be summarized by questions presented in the Office Action. First, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the step of the instant claim to comprise a step in addition to the steps of claim 6 or not. Claim 39 requires the recited step to be performed in addition to the steps of claim 6. Specifically, claim 39 uses the "further comprising" transitional phrase, which indicates that the step that follows is in addition to the steps recited in claim 6.

Second, the Office Action asks whether there is a difference between an insurance cost and an insurance premium. The Patent Owner submits that this issue has been obviated by appropriate amendment. Claim 39 has been amended to remove the reference to an "insurance premium." However, the reference to an "insurance cost" in claim 39 is intended to be broad enough to cover an insurance cost to a customer, such as the costs commonly known as insurance premiums. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

P. Claim 41: The Office Action's indefiniteness rejection of claim 41 may be summarized by a question presented in the Office Action. Specifically, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim in addition to the steps of claim 6 or not. Claim 41 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 41 uses the "further comprising" transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6. Therefore, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

Q. Claim 49: The Office Action's indefiniteness rejection of claim 49 may be summarized by a question presented in the Office Action. Specifically, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim in addition to the steps of

claim 6 or not. Claim 49 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 49 uses the “further comprising” transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6. Therefore, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

R. Claim 50: The Office Action’s indefiniteness rejection of claim 50 may be summarized by a question presented in the Office Action. Specifically, the Office Action asks whether the claim language at its broadest reasonable interpretation requires these steps of the instant claim in addition to the steps of claim 6 or not. Claim 50 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 50 uses the “further comprising” transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6. Therefore, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

S. Claim 62: The Patent Owner submits that this rejection has been obviated by appropriate amendment. Amended claim 62 requires generating an insurance cost based on at least one of the one or more data elements and the actuarial class of insurance. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

T. Claim 64: The Office Action does not present any new indefiniteness issues with respect to the language of claim 64. Rather, the rejection of claim 64 only refers back to the discussion of claims 40 and 61-63. Therefore, Applicants assert that claim 64 is clear and those skilled in the art would understand what is claimed for the same reasons as discussed above in connection with the relevant portions of claims 40 and 62 (claims 61 and 63 have been canceled).

U. Claim 68: The Office Action’s indefiniteness rejection of claim 68 may be summarized by a question presented in the Office Action. Specifically, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 68 requires the recited steps to be performed in addition to



the steps of claim 6. Specifically, claim 68 uses the “further comprising” transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6. Therefore, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

V. Claim 69: The Office Action’s indefiniteness rejection of claim 69 may be summarized by a question presented in the Office Action. Specifically, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 69 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 69 uses the “further comprising” transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6. Therefore, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

W. Claim 80: The Office Action’s indefiniteness rejection of claim 80 may be summarized by questions presented in the Office Action and one alleged antecedent basis issue. First, the Office Action asks whether the claim language at its broadest reasonable interpretation requires these steps of the instant claim to comprise steps in addition to the steps of claim 6 or not. Claim 80 requires the recited steps to be performed in addition to the steps of claim 6. Specifically, claim 80 uses the “further comprising” transitional phrase, which indicates that the steps that follow are in addition to the steps recited in claim 6.

Second, the Office Action asks whether the claim language at its broadest reasonable interpretation requires the “speed threshold” to be a “speed limit.” This issue has been obviated by an amendment to claim 80 that replaces the word “threshold” with the word “limit.”

Third, the Office Action raises an alleged antecedent basis issue with the phrase “that a speed of the vehicle is above the predetermined speed threshold” because the preceding comparison step does not positively recite that the comparison results in the speed exceeding the threshold. This issue has been obviated by an amendment to claim 80 to recite that the speed data indicates an occurrence of an

excessive speed event above the predetermined speed threshold. In view of these amendments, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

#### **EXEMPLARY SUPPORT FOR INDEPENDENT CLAIM CHANGES**

Claims 4 and 5 are amended to include insured profiles that are determined/generated prior to the claimed monitoring of operator driving characteristics or operating state of the vehicle. The insured profile includes limits and deductibles for determining a cost of vehicle insurance. Support for these limitations may be found in the '970 Patent at col. 10, lines 30-49 and col. 3, line 67-col. 4, line 10.

Claim 1 is amended to include generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics as represented by the recorded data elements. Claim 6 is amended to include wherein the output data value is used to compute an insurance rating for the vehicle that is based on an actuarial class of insurance, which groups operators or vehicles having a similar risk characteristic and which represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, for the data collection period. Claim 70 is amended to include computing an insurance rating based upon the output data value for the vehicle for the data collection period, in which the insurance rating is based on an actuarial class of insurance that represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, and setting prospective insurance premiums based on the actuarial class. Support for these amendments can be found at least in the following passages: col. 5, lines 28-46; col. 1, lines 28-30 and lines 53-56; col. 3, 45-50; col. 5, 7-11 and 28-32 and original claim 17 from parent patent application serial number: 08/592,958, now U.S. Pat. No. 5,797,134.

Claim 70 is further amended to reflect the original language recited in claim 6.<sup>5</sup> The amendment adopts the examiner's recognition that the preset values are related to safety standards and that the

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<sup>5</sup> The Patent Owner respectfully submits that the amendment to claim 70 obviates the rejection under 35 U.S.C. § 305. Office Action at 193-194, (June 14, 2011).

actuarial classes determine an insurance rating and determine a prospective setting of premiums as summarized in the Advisory Action. The amendment further recognizes that a computer extracts data from the sensors.

With reference to FIG. 3, an exemplary motor vehicle is shown in which the necessary apparatus for implementing the subject invention is included. An on-board computer 300 monitors and records various sensors and operator actions . . . '970 Patent at col. 6, lines 44-49 and at col. 8, lines 26-31.

The Patent Owner respectfully submits that these passages support the changes made to the independent claims in accordance with 37 C.F.R. § 1.530(e).

#### **EXEMPLARY SUPPORT FOR ADDED DEPENDENT CLAIM CHANGES**

Exemplary support for the added dependent claims follows:

Claim 17 is fully supported by the description in the specification (e.g., col. 8, lines 39-52; col. 11, lines 42-61). The amendments to claim 17 are further supported by col. 6, lines 59-64; col. 7, 18-21 and 61; col. 8, 46-52.

Claim 18 is fully supported by the description in the specification (e.g., col. 8, lines 39-52; col. 11, lines 42-61). The amendments to claim 18 are further supported by col. 7, line 26-col. 8, line 25 (e.g., see col. 7, lines 62-63) and col. 8, 46-52.

Claim 20 is fully supported by the description in the specification (e.g., col. 6, line 41; col. 8, line 1; col. 8, lines 51-52; col. 4, lines 11-14; col. 4, line 46; col. 8, line 61 to col. 9, line 33).

Claim 22 is fully supported by the description in the specification (e.g., col. 5, lines 27-32; col. 6, line 41; col. 8, line 1; col. 8, lines 51-52; col. 4, line 46).

Claim 23 is fully supported by the description in the specification (e.g., col. 3, lines 45-50; col. 6, line 42; col. 8, lines 51-52; col. 4, line 45; col. 4, lines 63-64; abstract; col. 3, line 61 to col. 4, line 10; col. 5, lines 27-43; col. 6, lines 9-31). The amendments to claim 23 are further supported by col. 6, lines 29-31 and 42-48; col. 7, 18-21 and 61; col. 8, 46-52.

Claim 24 is fully supported by the description in the specification (e.g., col. 6, line 42; col. 8, lines 51-52; col. 4, line 45; col. 4, lines 11-14; col. 4, lines 62-64; col. 8, line 61 to col. 9, line 33). The amendments to claim 24 are further supported by col. 6, lines 46-48.

Claim 25 is fully supported by the description in the specification (e.g., col. 6, line 42; col. 8, lines 51-52; col. 4, line 45; col. 4, lines 63-64; abstract; col. 3, line 61 to col. 4, line 15; col. 8, lines 44-52; col. 12, lines 7-25). The amendments to claim 25 are further supported by col. 6, lines 29-31 and 42-48 and 41.

Claim 26 is fully supported by the description in the specification (e.g., col. 5, lines 27-32; col. 6, line 42; col. 8, lines 51-52; col. 4, line 45; col. 4, lines 63-64).

Claim 27 is fully supported by the description in the specification (e.g., col. 4, line 43; col. 5, lines 6 and 27-33; col. 6, lines 39-42; col. 7, line 60; col. 8, line 20; col. 8, lines 27-52; col. 9, lines 61-67; col. 11, lines 4-18). The amendments to claim 27 are further supported by col. 6, lines 59-63.

Claim 28 is fully supported by the description in the specification (e.g., col. 4, line 43; col. 5, line 6; col. 6; col. 6, lines 27-33; col. 6, lines 39-42; col. 7, line 60; col. 8, line 20; col. 8, lines 27-52; col. 9, lines 61-67; col. 11, lines 4-18).

Claim 29 is fully supported by the description in the specification (e.g., col. 4, line 43; col. 5, line 6; col. 6, line 36; col. 7, line 60; col. 8, line 20; col. 8, lines 27-52; col. 9, lines 61-67; col. 11, lines 4-18). The amendments to claim 29 are further supported by col. 6, lines 59-63.

Claim 32 is fully supported by the description in the specification (e.g., col. 3, lines 45-50; col. 4, lines 38-39; col. 5, line 1; col. 5, lines 27-33; col. 6, lines 39-40; abstract; col. 3, line 61 to col. 4, line 10; col. 5, lines 34-43; col. 6, lines 9-31). The amendments to claim 32 are further supported by col. 4, lines 27-39; col. 4, line 52 to col. 5, line 1; and col. 6, lines 24-40.

Claim 34 is fully supported by the description in the specification (e.g., col. 3, lines 45-50; col. 4, lines 36-37; col. 4, lines 63-64; col.4, line 67; col. 5, lines 27-33; col. 6, line 33; col. 3, lines 34-39; col. 6, lines 59-63; abstract; col. 3, line 61 to col. 4, line 10; col. 5, lines 34-43; col. 6, lines 9-31). The amendments

to claim 34 are further supported by col. 4, lines 27-39; col. 4, line 52 to col. 5, line 1; and col. 6, lines 24-40.

Claim 35 is fully supported by the description in the specification (e.g., col. 3, lines 45-50; col. 8, line 11; col. 6, line 41; col. 8, line 1; col. 8, lines 51-52; col. 4, line 46; abstract; col. 3, line 61 to col. 4, line 10; col. 5, lines 27-43; col. 6, lines 9-31). The amendments to claim 35 are further supported by col. 7, lines 21-26 and column 8, line 11.

Claim 39 is fully supported by the description in the specification (e.g., abstract; col. 5, lines 34-43).

Claim 41 is fully supported by the description in the specification (e.g., col. 5, lines 7-12).

Claim 49 is fully supported by the description in the specification (e.g., col. 4, lines 26-57; col. 5, lines 7-12; col. 5, lines 28-43; col. 6, line 41; col. 8, line 1; col. 8, lines 51-52).

Claim 50 is fully supported by the description in the specification (e.g., col. 4, lines 26-57; col. 5, lines 7-12; col. 5, lines 28-43; col. 6, line 42; col. 8, lines 51-52; col. 4, lines 63-64).

Claim 51 is fully supported by the description in the specification (e.g., figure 4; col. 6, line 66 to col. 7, line 17).

Claim 62 is fully supported by the description in the specification (e.g., col. 12, lines 62-67; col. 3, lines 40-58; figure 2; col. 6, lines 9-43; abstract). The amendments to claim 62 are further supported by col. 3, lines 40-58; col. 4, lines 27-31; col. 4, lines 52-57; and col. 5, lines 28-43.

Claim 64 is fully supported by the description in the specification (e.g., col. 13, lines 6-8; col. 5, lines 34-43; abstract).

Claim 68 is fully supported by the description in the specification (e.g., col. 6, line 41; col. 8, line 1; col. 4, line 46; abstract; col. 3, line 61 to col. 4, line 10; col. 5, lines 34-43; col. 6, lines 9-31; col. 4, line 43; col. 5, line 6; col. 6, line 36; col. 7, line 60; col. 8, line 20; col. 8, lines 27-52; col. 9, lines 61-67; col. 11, lines 4-18; col. 8, line 17; col. 5, lines 13-22).

Claim 80 is fully supported by the description in the specification (e.g., col. 4, line 43; col. 5, line 6; col.

6, lines 27-42; col. 7, line 60; col. 8, lines 20-52; col. 9, lines 61-67; col. 11, lines 4-18).

#### STATUS AND CHANGES TO ADDED CLAIMS

Claims Pending: 1, 3-15, 17, 18, 20, 22-29, 32, 34, 35, 39, 41, 49-55, 62, 64, 68-70, 76, 77, 80.

Claims Amended: 1, 3-6, 17, 18, 20, 22-29, 32, 34, 35, 39, 41, 49-51, 62, 64, 68, 70, 80.

Claims Cancelled: 2, 16, 19, 21, 30, 31, 33, 36-38, 40, 42-48, 56-61, 63, 65-67, 71-75, 78, 79.

The changes made to claims 1-15 are shown above. The changes made to claims 16-80 are shown below. Because the claim amendments in Patent Owner's August 12, 2011 Response to Office Action were not entered, the marked-up versions of the claims below illustrate the changes made relative to the version of these claims contained in Patent Owner's April 6, 2011 Response to Office Action.

16. (cancelled).

17. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data; wherein the step of analyzing, grouping, and storing comprises] further comprising:

determining a location of the vehicle from vehicle tracking navigation signals; and

[grouping a selected data element of the one or more data elements in the first memory in combination with] storing [a] the location of the vehicle [associated with the selected data element] in the first memory when the one or more data elements are stored.

18. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data; wherein the step of analyzing, grouping, and storing comprises grouping a selected data element of the one or more data elements in the first memory in combination with] further comprising storing a time or date when the one or more data elements are stored [associated with the selected data element].

19. (cancelled).

20. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method]-further comprising:

calculating a rate of acceleration of the vehicle based on [at least one of] the one or more data elements; and

determining whether the rate of acceleration [indicates a trigger event which] would result in a surcharge or discount during an insurance billing process.

21. (cancelled).

22. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method]further comprising:

recording a number of excessive [rates of] or sudden acceleration events during the data collection period [that are identified as being excessive or sudden; and

computing the insurance rating for the vehicle based on the number of identified excessive or sudden acceleration events].

23. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method]further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data[based on at least one of the one or more data elements; and

using the rate of braking associated with the vehicle to compute the insurance rating for the vehicle].

24. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data [based on at least one of the one or more data elements]; and

determining whether the rate of braking [indicates a trigger event which] would result in a surcharge or discount during an insurance billing process.

25. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method]-further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data[based on at least one of the one or more data elements];

determining whether the rate of braking has a preselected relationship to a predetermined safety standard; and

recording the rate of braking in the first memory in response to determining that the rate of braking has the preselected relationship to the safety standard.

26. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method]further comprising:

recording a number of sudden braking events or hard braking situations during the data collection period [that are identified as being excessive or sudden; and

computing the insurance rating for the vehicle based on the number of identified excessive or sudden braking events].



27. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

determining a location of the vehicle through navigation signals;

monitoring and recording [determining] speed data associated with [a] the location of the vehicle through the computer programmed to monitor sensor data[based on at least one of the one or more data elements];

identifying a predetermined speed limit [threshold] associated with the location of the vehicle;

and

comparing the speed data to the predetermined speed limit [threshold] to determine that the speed data indicates an occurrence of an excessive speed event above the predetermined speed limit [threshold];

and

computing the insurance rating for the vehicle based on the occurrence of the excessive speed event].

28. (previously presented) The method according to claim 27, further comprising measuring a time duration of the excessive speed event above the predetermined speed limit [threshold, wherein the step of computing the insurance rating comprises computing the insurance rating for the vehicle based on the time duration of the excessive speed event].

29. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

determining a location of the vehicle through navigation signals;

monitoring and recording [determining] speed data associated with [a] the location of the vehicle through the computer programmed to monitor sensor data[based on at least one of the one or more data elements];

extracting speed limit data associated with the location of the vehicle from a computer database;

comparing the speed data to the speed limit data to determine whether the speed data indicates an occurrence of an excessive speed event above the speed limit data; and

recording the speed data in the first memory in response to determining that the speed data indicates an occurrence of an excessive speed event above the speed limit data.

30 - 31. (cancelled).

32. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

monitoring time of day driving data associated with the vehicle;

determining an amount of time that the vehicle is driven at high risk times[that the time of day driving data indicates an occurrence of a high risk driving time event]; and

[computing the insurance rating for the vehicle based on the occurrence of the high risk driving time event]determining an insurance cost based on the amount of time that the vehicle is driven at high risk times.

33. (cancelled).

34. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

monitoring driving route data associated with a location of the vehicle;

determining an amount of time that the vehicle is driven in high risk locations[ that the driving route data indicates an occurrence of a high risk driving location event]; and

[computing the insurance rating for the vehicle based on the occurrence of the high risk driving location event]determining an insurance cost based on the amount of time that the vehicle is driven in high risk locations.

35. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

recording a lateral acceleration of the vehicle,<sup>2</sup>[ based on at least one of the one or more data elements; and

using the lateral acceleration of the vehicle to compute the insurance rating for the vehicle.]

36 - 38. (cancelled).

39. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising prospectively setting an insurance cost [or an insurance premium ]associated with the vehicle based on at least one of the one or more data elements.

40. (cancelled).

41. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

using one or more of the one or more data elements to determine [an insurance ]the actuarial class of insurance associated with the vehicle; and

using one or more of the one or more data elements to determine a surcharge or discount to be applied to a base cost of insurance associated with the vehicle.

42 - 48. (cancelled).

49. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

determining acceleration data associated with the vehicle based on at least one of the one or more data elements; and

determining [an insurance ]the actuarial class of insurance based on the acceleration data.

50. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

determining braking data associated with the vehicle based on at least one of the one or more data elements; and

determining [an insurance ]the actuarial class of insurance based on the braking data.

51. (twice amended) The method according to claim 6, wherein the [step of extracting comprises

extracting the one or more data elements from the at least one sensor by] computer is an on-board computer comprising a computer processor and computer memory.

52. (previously presented) The method according to claim 6, wherein the step of extracting comprises communicating one or more raw data elements to a computer through an on-board diagnostics (OBD) connector of the vehicle.

53. (previously presented) The method according to claim 6, wherein the at least one sensor comprises an in-vehicle sensor in operative connection with a data bus of the vehicle, and wherein the step of extracting comprises monitoring the at least one operating state of the vehicle through the at least one in-vehicle sensor.

54. (previously presented) The method according to claim 6, wherein the at least one sensor comprises a power train sensor coupled with the vehicle, an in-vehicle electrical sensor coupled to the vehicle, and an in-vehicle body sensor coupled with the vehicle;

wherein the one or more data elements comprise a first data element, a second data element, and a third data element;

wherein the step of extracting comprises:

extracting the first data element from the power train sensor coupled with the vehicle;

extracting the second data element from the in-vehicle electrical sensor coupled to the vehicle;

and

extracting the third data element from the in-vehicle body sensor coupled with the vehicle.

55. (previously presented) The method according to claim 6, further comprising:

analyzing the one or more data elements to identify a trigger event requiring additional action;

and

transmitting a location of the vehicle by an on-board computer to a remote control center in response to determining that the one or more data elements comprise the trigger event.

56 - 61. (cancelled).

62. (amended) The method according to claim 6, further comprising generating an insurance cost based on at least one of the one or more data elements and the actuarial class of insurance[insurance rating for the vehicle for the data collection period, where the preset values comprise a safety standard value or other actuarial standard value].

63. (cancelled).

64. (twice amended) The method according to claim [63 ]62 where the insurance cost is for a prospective or retrospective basis.

65 - 67. (cancelled).

68. (twice amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

- calculating a distance traveled by the vehicle based on at least one of the one or more data elements extracted from the at least one sensor;

- determining speed data associated with the vehicle based on at least one of the one or more data elements;

- recording a rate of change in vehicle speed with respect to time based on at least one of the one or more data elements extracted from the at least one sensor; and

- processing the distance traveled, the rate of change in vehicle speed with respect to time, and the speed data to compute the insurance rating for the vehicle.

69. (previously presented) The method according to claim 68, further comprising:

- monitoring time of day driving data associated with the vehicle; and

- processing the time of day driving data to compute the insurance rating for the vehicle.

70. (twice amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

extracting [and storing in the vehicle a plurality of ]one or more data elements by an on-board computer from [a plurality of in-vehicle sensors]at least one sensor wherein the [plurality of data]one or more elements are [generated by an ]of at least one operating state of the vehicle and the at least one human's actions during a data collection period;

analyzing, grouping, and storing the [plurality of]one or more data elements as group data values in a first memory related to a predetermined group of [risk assessment ]elements[ during the data collection period];

correlating the group data values to preset [insurance ]values related to safety standards in a second memory and generating an output data value based on the correlation; and

computing an insurance rating based upon the output data value for the vehicle for the data collection period, in which the insurance rating is based on [the output data value]an actuarial class of insurance that represents actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, and setting prospective insurance premiums based on the actuarial class.

71 - 75. (cancelled).

76. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a discount, and wherein producing the final cost of vehicle insurance comprises applying the discount to the base cost of vehicle insurance.

77. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a surcharge, and wherein producing the final cost of vehicle insurance comprises applying the surcharge to the base cost of vehicle insurance.

78 - 79. (cancelled).

80. (amended) The method according to claim 6, [wherein the step of extracting comprises extracting the one or more data elements by a computer programmed to gather data, the method] further comprising:

determining speed data associated with the vehicle based on at least one of the one or more data elements;

identifying a predetermined speed[ threshold] limit;

comparing the speed data to the predetermined speed[threshold] limit to determine that the speed data indicates an occurrence of an excessive speed event above the predetermined speed limit;

measuring an amount of time that a speed of the vehicle is above the predetermined speed [threshold] limit; and

computing the insurance rating for the vehicle based on the amount of time that the speed of the vehicle is above the predetermined speed[ threshold] limit.

#### CONCLUSION

For these reasons, the Patent Owner respectfully requests reconsideration. In view of the advances made, the Patent Owner respectfully requests that the lines of communication remain open. We appreciate your consideration.

Respectfully submitted,

Date: September 26, 2011

By:

/James A. Collins/  
James A. Collins  
Registration No. 43,557  
*Attorney of Record*  
Brinks Hofer Gilson & Lione  
455 N. Cityfront Plaza Drive, Suite 3600  
Chicago, IL 60601  
(312) 321-4200 (telephone)  
(312) 321-4299 (facsimile)

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR § 1.8.

/James A. Collins/

James A. Collins, Reg. No. 43,557

September 26, 2011

Date of Signature & Date of Transmission

**EX PARTE REEXAM**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
CENTRAL REEXAMINATION UNIT

<i>Ex parte</i> Reexamination of U.S. Patent	:	
6,064,970	:	
	:	
Robert J. McMillan, et al.	:	Confirmation No. 4116
	:	
Control No. 90/011,252	:	Examiner: Karin M. Reichle
	:	
	:	Group Art Unit: 3992
Filing Date: August 17, 1998	:	
	:	
For: MOTOR VEHICLE MONITORING SYSTEM FOR	:	Attorney Docket No. 12741-32
DETERMINING A COST OF INSURANCE	:	

MAIL STOP *EX PARTE* REEXAM  
Central Reexamination Unit  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INTERVIEW SUMMARY**

On September 13, 2011, a telephone interview was held with Examiners Karin Reichle, Alex Kalinowsky, and Zoila Cabrera and Patent Owner's representatives Raymond Ling, Joseph Hanasz, and James Collins. The Patent Owner's representatives appreciate the graciousness and helpful suggestions made by the Examiners.

Potential amendments to the claims outlined in the Brief Outline for Interview (submitted



for discussion purposes) were discussed, as were the differences between the prior art and claimed inventions. The Examiners agreed that the alternative amendments to claims 4 and 5 (shown in the Brief Outline) and amendments reflecting that the insured profile includes limits and deductibles distinguish claims 4 and 5 over the prior art.

Patent Owner's representatives also presented interpretations of selected claim terms, discussed support in the specification for these interpretations, and asserted that these interpretations were not disclosed in the prior art. The Examiners reserved their decision about these assertions so that they may consider the written arguments they requested.

Support for the select claim limitations was also discussed. The parties agree that there is support in the specification for "generating actuarial classes of insurance from actual driving characteristics as represented by the recorded data elements."

Patent Owner's representatives appreciate the Examiners' flexibility in agreeing to further interviews if they are needed. Should the Examiner have any questions or comments regarding this matter, the undersigned may be reached at (312) 321-4200.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE  
312-321-4200

/James A. Collins/  
James A. Collins  
Registration No. 43,557  
Attorney for Patentee

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

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Date: September 26, 2011 Name: James A. Collins Signature: /James A. Collins/

BRINKS  
HOFER  
GILSON  
& LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Ex parte Reexamination of U.S. Patent 6,064,970

Robert J. McMillan, et al.

Patent Filing Date: August 17, 1998

Reexamination Filing Date: September 22, 2010

Control No.: 90/011,252

For: MOTOR VEHICLE MONITORING SYSTEM FOR  
DETERMINING A COST OF INSURANCE

Examiner: Karin M. Reichle

Group Art Unit: 3992

Conf. No.: 4116

Attorney Docket No.: 12741/32

CERTIFICATE OF SERVICE

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I hereby certify that a true copy of the foregoing **INTERVIEW SUMMARY** and **RESPONSE TO OFFICE ACTION**, was served this September 26, 2011 by First Class United States Mail, postage prepaid, on:

J. Steven Baughman  
Ropes & Gray LLP  
One International Place  
Boston, MA 02110

Respectfully submitted,

September 26, 2011  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)

BRINKS  
HOFER  
GILSON  
& LIONE

BRINKS HOFER GILSON & LIONE  
NBC Tower – Suite 3600, 455 N. Cityfront Plaza Drive, Chicago, IL 60611-5599

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	11051613
<b>Application Number:</b>	90011252
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4116
<b>Title of Invention:</b>	MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE
<b>First Named Inventor/Applicant Name:</b>	6,064,970
<b>Customer Number:</b>	10999
<b>Filer:</b>	Steven P. Shurtz/Maggie Pieczonka
<b>Filer Authorized By:</b>	Steven P. Shurtz
<b>Attorney Docket Number:</b>	12741-32
<b>Receipt Date:</b>	26-SEP-2011
<b>Filing Date:</b>	22-SEP-2010
<b>Time Stamp:</b>	17:14:15
<b>Application Type:</b>	Reexam (Patent Owner)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Trans Letter filing of a response in a reexam	transforoa.PDF	43542 89fc35e2d21ac605fd464fa3917cd1727d89d78d	no	1

### Warnings:

### Information:

2		resptooa.PDF	1795307 e1ccef0c726f236e1490dbfb246d329bf1ea 3d1	yes	39
<b>Multipart Description/PDF files in .zip description</b>					
		<b>Document Description</b>	<b>Start</b>	<b>End</b>	
		Amendment After Final	1	1	
		Claims	2	11	
		Applicant Arguments/Remarks Made in an Amendment	12	39	
<b>Warnings:</b>					
<b>Information:</b>					
3	Applicant summary of interview with examiner	intsum.PDF	70607 188cc9d2458f7cfd8bac2ecb71fdcd672422 96c	no	2
<b>Warnings:</b>					
<b>Information:</b>					
4	Reexam Certificate of Service	certofserv.PDF	32203 7011c990762c00ff23d4468a03a2e3033a79f ea7	no	1
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1941659		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p>					

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Date: September 26, 2011 Name: James A. Collins, Reg. No. 43,557 Signature: /James A. Collins/

**BRINKS  
HOFER  
GILSON  
& LIONE**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re-Examination of: Robert J. McMillan et al.

Re-Examination Appl. No.: 90/011,252

Re-Examination Filing Date: September 22, 2010

U.S. Patent No.: 6,064,970

For: **MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE**

Attorney Docket No.: 12741/32

Examiner: Karin M. Reichle

Group Art Unit: 3992

Conf. No.: 4116

**TRANSMITTAL**

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

**Attached is/are:**

Transmittal; Response to Office Action; Interview Summary; and Certificate of Service.

**Fee calculation:**

- No additional fee is required.
- Small Entity.
- An extension fee in an amount of \$\_\_\_\_\_ for a \_\_\_\_\_ month extension of time under 37 CFR § 1.136(a).
- A petition or processing fee in an amount of \$\_\_\_\_\_ under 37 CFR § 1.20().
- An additional filing fee has been calculated as shown below:

					Small Entity		Not a Small Entity		
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus	73		x \$26=			x \$52=	
Indep.		Minus	6		x 110=			x \$220=	
First Presentation of Multiple Dep. Claim					+ \$195=			+ \$390=	
					Total	\$		Total	\$

**Fee payment:**

- Please charge Deposit Account No. 23-1925 in the amount of \$\_\_\_\_\_ for \_\_\_\_\_.
- Payment by credit card in the amount of \$\_\_\_\_\_ (Form PTO-2038 is attached).
- The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

September 26, 2011  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)

**NOTICE OF APPEAL  
FROM THE EXAMINER TO THE BOARD OF PATENT  
APPEALS AND INTERFERENCES**

Docket Number (Optional)  
12741-32

Certificate of EFS Filing Under 37 CFR §1.8

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Date: September 14, 2011 Name: James A. Collins, Reg. No. 43,557

Signature /James A. Collins/

Robert J. McMillan, et al.

*Ex parte* Reexamination of  
U.S. Patent No.  
6,064,970

Filing Date  
August 17, 1998

Control No. 90/011,252

For **Motor Vehicle Monitoring System for  
Determining a Cost of Insurance**

Art Unit  
3992

Examiner  
Karin M. Reichle

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) \$540.00

Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is \$ \_\_\_\_\_  
Reduced by half, and the resulting fee is: \$ \_\_\_\_\_

Payment by credit card. Form PTO-2038 is attached.

The Director has already been authorized to charge fees in this application to a Deposit Account.

The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 23-1925.

A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed.

**WARNING: Information on this form may become public.  
Credit card information should not be included on this form.  
Provide credit card information and authorization on PTO-2038.**

I am the:

Applicant/Inventor.

/James A. Collins/  
Signature

Assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

James A. Collins, Reg. No. 43,557  
Typed or Printed Name

Attorney or agent of record.  
Registration No. 43,557.

Attorney or agent acting under 37 CFR 1.34.  
Registration No. if acting under 37 CFR 1.34. \_\_\_\_\_.

(312) 321-4200  
Telephone number

**Note:** Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

September 14, 2011  
Date

\*Total of 1 form is submitted.

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Date: September 14, 2011 Name: James A. Collins, Reg. No. 43,557 Signature: /James A. Collins/

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Ex Parte Robert J. McMillan, et al.  
Reexam of:

Reexam Appln. 90/011,252  
No.:

Filed: August 17, 1998

For: Motor Vehicle Monitoring System for  
Determining a Cost of Insurance

Docket No: 12741-32

Examiner: Karin M. Reichle

Art Unit: 3992

Conf. No.: 4116

**CERTIFICATE OF SERVICE**

Mail Stop *Ex Parte* Reexam  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I hereby certify that a true copy of the foregoing NOTICE OF APPEAL was served this September 14, 2011 by First Class United States Mail, postage prepaid, on:

J. Steven Baughman  
Ropes & Gray LLP  
One International Place  
Boston, MA 02110

Respectfully submitted,

September 14, 2011  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	90011252				
<b>Filing Date:</b>	22-Sep-2010				
<b>Title of Invention:</b>	MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE				
<b>First Named Inventor/Applicant Name:</b>	6,064,970				
<b>Filer:</b>	James A. Collins/Lisa Hedl				
<b>Attorney Docket Number:</b>	12741-32				
Filed as Large Entity					
<b>ex parte reexam Filing Fees</b>					
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>	
<b>Basic Filing:</b>					
<b>Pages:</b>					
<b>Claims:</b>					
<b>Miscellaneous-Filing:</b>					
<b>Petition:</b>					
<b>Patent-Appeals-and-Interference:</b>					
Notice of appeal	1401	1	540	540	
<b>Post-Allowance-and-Post-Issuance:</b>					
<b>Extension-of-Time:</b>					



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
<b>Total in USD (\$)</b>				<b>540</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	10946140
<b>Application Number:</b>	90011252
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4116
<b>Title of Invention:</b>	MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE
<b>First Named Inventor/Applicant Name:</b>	6,064,970
<b>Customer Number:</b>	10999
<b>Filer:</b>	James A. Collins/Maggie Pieczonka
<b>Filer Authorized By:</b>	James A. Collins
<b>Attorney Docket Number:</b>	12741-32
<b>Receipt Date:</b>	14-SEP-2011
<b>Filing Date:</b>	22-SEP-2010
<b>Time Stamp:</b>	14:37:25
<b>Application Type:</b>	Reexam (Patent Owner)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 540
RAM confirmation Number	890
Deposit Account	231925
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)  
 Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		32Papers.pdf	118247 <small>9dc1ec8e6a64d788b7d2988cb4a8f2340ed8128d</small>	yes	3

**Multipart Description/PDF files in .zip description**

Document Description	Start	End
Transmittal Letter	1	1
Notice of Appeal Filed	2	2
Reexam Certificate of Service	3	3

**Warnings:**

**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	29920 <small>7c7646ae4d32ee718549a810862a974d19403918</small>	no	2
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**Warnings:**

**Information:**

**Total Files Size (in bytes):** 148167

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

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Date: September 14, 2011 Name: James A. Collins Reg. No. 43,557 Signature: /James A. Collins/

**BRINKS  
HOFER  
GILSON  
& LIONE**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Ex Parte Robert J. McMillan, et al.  
 Reexam of:  
 Reexam Appl. 90/011,252  
 No.:  
 Filed: August 17, 1998  
 For: Motor Vehicle Monitoring System for  
 Determining a Cost of Insurance  
 Docket No: 12741-32

Examiner: Karin M. Reichle  
 Art Unit: 3992  
 Conf. No.: 4116

**TRANSMITTAL**

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 Commissioner for Patents  
 PO Box 1450  
 Alexandria, VA 22313-1450

Sir:

**Attached is/are:**

Notice of Appeal; Certificate of Service

**Fee calculation:**

- No additional fee is required.
- Small Entity.
- An extension fee in an amount of \$\_\_\_\_\_ for a \_\_\_\_\_-month extension of time under 37 CFR § 1.136(a).
- A fee in an amount of \$540.00 for the Notice of Appeal.
- An additional filing fee has been calculated as shown below:

				Small Entity		Not a Small Entity			
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus			x \$26=			x \$52=	
Indep.		Minus			x 110=			x \$220=	
First Presentation of Multiple Dep. Claim					+\$195=			+\$390=	
					Total	\$		Total	\$0

**Fee payment:**

- Please charge Deposit Account No. 23-1925 in the amount of \$540.00 for the Notice of Appeal.
- Payment by credit card in the amount of \$\_\_\_\_\_ (Form PTO-2038 is attached).
- The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

September 14, 2011  
 Date

/James A. Collins/  
 James A. Collins (Reg. No. 43,557)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/011,252	09/22/2010	6,064,970	12741-32	4116
10999	7590	09/14/2011	EXAMINER	
Progressive Casualty/BHGL P.O. Box 10395 Chicago, IL 60610			ART UNIT	PAPER NUMBER

DATE MAILED: 09/14/2011

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



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SEP 14 2011  
SEP 14 2011

CENTRAL REEXAMINATION UNIT  
CENTRAL REEXAMINATION UNIT

**EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90011,252.

PATENT NO. 6,064,970.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).



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Alexandria, Virginia 22313-1450

<b>APPLICATION NO./ CONTROL NO.</b>	<b>FILING DATE</b>	<b>FIRST NAMED INVENTOR / PATENT IN REEXAMINATION</b>	<b>ATTORNEY DOCKET NO.</b>
90/011,252	22 September, 2010	6,064,970	12741-32

Progressive Casualty/BHGL P.O. Box 10395 Chicago, IL 60610	<b>EXAMINER</b>	
	KARIN REICHLE	
	<b>ART UNIT</b>	<b>PAPER</b>
	3992	20110913

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Commissioner for Patents

	Karin M. Reichle Primary Examiner Art Unit: 3992



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CENTRAL REEXAMINATION UNIT  
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**EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/011,252.

PATENT NO. 6,064,970.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).





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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
90/011,252	22 September, 2010	6,064,970	12741-32

Progressive Casualty/BHGL P.O. Box 10395 Chicago, IL 60610	EXAMINER	
	KARIN REICHLÉ	
	ART UNIT	PAPER
	3992	20110913

**MAILED**

DATE MAILED:

**SEP 14 2011**

**CENTRAL REEXAMINATION UNIT**  
Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

	Karin M. Reichle Primary Examiner Art Unit: 3992

<b>Ex Parte Reexamination Interview Summary</b>	<b>Control No.</b> 90/011,252	<b>Patent Under Reexamination</b> 6,064,970
	<b>Examiner</b> KARIN REICHLE	<b>Art Unit</b> 3992
All participants (USPTO personnel, patent owner, patent owner's representative):		
(1) <u>KARIN REICHLE, Zoila Cabrera, Alex Kalinowsky</u>	(3) <u>Raymond Ling</u>	
(2) <u>James A Collins</u>	(4) <u>Joseph Hanasz</u>	
<p>Date of Interview: <u>13 September 2011</u></p> <p>Type: a) <input checked="" type="checkbox"/> Telephonic b) <input type="checkbox"/> Video Conference  c) <input type="checkbox"/> Personal (copy given to: 1) <input type="checkbox"/> patent owner 2) <input type="checkbox"/> patent owner's representative)</p> <p>Exhibit shown or demonstration conducted: d) <input type="checkbox"/> Yes e) <input checked="" type="checkbox"/> No.  If Yes, brief description: _____</p> <p>Agreement with respect to the claims f) <input checked="" type="checkbox"/> was reached. g) <input checked="" type="checkbox"/> was not reached. h) <input type="checkbox"/> N/A.  Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."</p> <p>Claim(s) discussed: <u>1 and 4-6.</u></p> <p>Identification of prior art discussed: <u>Bouchard, Kosaka, Black Magic.</u></p> <p>Description of the general nature of what was agreed to if an agreement was reached, or any other comments:  <u>See Continuation Sheet.</u></p> <p>(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)</p> <p><b>A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).</b></p>		
/Karin M. Reichle/ Primary Examiner, Art Unit 3992		
cc: Requester (if third party requester)		

Continuation of Description of the general nature of what was agreed to if an agreement was reached, or any other comments: The proposed amendments set forth in the 9/8/11 submission entitled "BRIEF OUTLINE FOR INTERVIEW" were discussed. It was tentatively agreed that alternative claims 4 and 5 presented therein, subject to further claim limitations regarding the "insured profile" reflecting the disclosure of col. 10, lines 36-39 of the '970 Patent, and claim 4, subject to further claim amendments changing "a cost" on the second to last line to "a final cost" or "a total cost" reflecting the disclosure of col. 4, lines 8-10 of the '970 Patent, appear to distinguish over the applied prior art of record and are supported by the cited portions of the disclosure. It was also tentatively agreed that claim 1, without the language ", which group operators or vehicles having a similar risk characteristic," was supported by the disclosure at col. 5, lines 28-43 of the '970 Patent. The patentability of such claim over the prior art was briefly discussed but no agreement was reached. The amendments to claim 6 were discussed. There was no agreement that the cited portions of the '970 Patent, esp. col. 5, lines 28-43 and original claim 17, provided support therefore. Final decision with regard to the issues discussed is reserved until formal submittal of a response and review of amendments and/or arguments thereof.

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR § 1.8.

**EX PARTE REEXAM**

/James A. Collins/

James A. Collins, Reg. No. 43,557

September 8, 2011

Date of Signature & Date of Transmission

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
CENTRAL REEXAMINATION UNIT

<i>Ex parte</i> Reexamination of	:	
U.S. Patent 6,064,970	:	
	:	
Robert J. McMillan, et al.	:	Confirmation No. 4116
	:	
Control No. 90/011,252	:	Examiner: Karin M. Reichle
	:	
Patent Filing Date: August 17, 1998	:	Group Art Unit: 3992
	:	
For: MOTOR VEHICLE MONITORING SYSTEM FOR	:	Attorney Docket No. 12741-32
DETERMINING A COST OF INSURANCE	:	

**BRIEF OUTLINE FOR INTERVIEW**

Dear Examiner Reichle:

Our goal is to advance prosecution. Hopefully, the following discussion points and supporting citations will facilitate an agreement.

**I. Claim 6:**

- Would the proposed amendments obviate the rejection of claim 6?

6. (amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics that are monitored and recorded from vehicle sensors;

extracting one or more data elements by a computer programmed to monitor sensor data from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period;

analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group of elements; and,

correlating the group data values to preset values in a second memory and generating an output data value based on the correlation wherein the output data value is used to compute an insurance rating for the vehicle [FOR]for the data collection period.

- Col. 5, lines 28-43; col. 1, lines 21-30; col. 1, lines 53-56; col. 6, lines 44-55; original claim 17 from parent patent application serial number 08/592,958; and
- Col. 6, line 44 to col. 7, line 16; col. 8, lines 27-31.

**Alternative**

6. (amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

extracting one or more data elements by a computer programmed to monitor sensor data from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period; and

analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group of elements; and,

correlating the group data values to preset values in a second memory and generating an output data value based on the correlation wherein the output data value is used to compute an insurance rating for the vehicle [FOR]for the data collection period;

where the insurance rating for the vehicle is based on an actuarial class of insurance that represents the actual driving characteristics of the vehicle monitored and recorded from the at least one sensor, the actuarial class groups operators or vehicles having a similar risk characteristic.

- Col. 6, line 44 to col. 7, line 16; col. 8, lines 27-31; and
- Col. 5, lines 28-43; col. 3, lines 40-58; col. 1, lines 21-30; col. 1, lines 53-56; col. 6, lines 44-55; original claim 17 from parent patent application serial number 08/592,958.

## II. Claim 1

- Would the proposed amendment obviate the rejection of claim 1?

1. (amended) A method of generating a database comprising data elements representative of operator or vehicle driving characteristics, the method comprising:

monitoring a plurality of the data elements representative of an operating state of a vehicle or an action of the operator during a selected time period; [and,]

recording selected ones of the plurality of data elements into the database when said ones are determined to be appropriate for recording relative to determining a cost of insurance for the vehicle during the selected time period, said ones including, a time and location of vehicle operation and a corresponding log of vehicle speed for the time and location; and

generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics as represented by the recorded data elements.

- Col. 5, lines 28-43; col. 1, lines 21-30; col. 1, lines 53-56; original claim 17 from parent patent application serial number 08/592,958.

## III. Claim 4.

- Would the proposed amendment obviate the rejection of claim 4?

4. (amended) A method of insuring [a vehicle] an operator of a vehicle for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics that are monitored and recorded from vehicle sensors;

generating an initial operator profile;

monitoring operator driving characteristics during the selected period;

classifying the vehicle in an actuarial class of insurance based upon the operator driving characteristics monitored in that period; and

deciding a cost of vehicle insurance for the period based upon the [operating] operator driving characteristics monitored in that period.

- Col. 5, lines 28-43; col. 1, lines 21-30; col. 1, lines 53-56; col. 6, lines 44-55; original claim 17 from parent patent application serial number 08/592,958); and
- Col. 3, lines 45-50; col. 3, lines 12-18; col. 5, lines 8-12; col. 1, lines 21-30.

**Alternative**

4. (amended) A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating an initial operator profile;

generating an insured profile prior to monitoring any operator driving characteristics;

monitoring the operator driving characteristics during the selected period; and

deciding a cost of vehicle insurance for the period based upon the [operating] operator driving characteristics monitored in that period, the insured profile, and a base cost of insurance.

- Col. 10, lines 30-49; and
- Col. 3, line 61 to col. 4, line 10.

**III. Claim 5.**

- Would the proposed amendment obviate the rejection of claim 5?

5. (amended) A method of determining a cost of vehicle insurance for a selected period based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics during said period, whereby the cost is adjustable by relating the driving characteristics to predetermined safety standards, the method comprising:

generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual driving characteristics that are monitored and recorded from vehicle sensors;

determining an initial insured profile and a base cost of vehicle insurance based on said insured profile;

monitoring a plurality of data elements representative of an operating state of a vehicle or an action of the operator during the selected period;

recording selected ones of the plurality of data elements when said ones are determined to have a preselected relationship to the safety standards;

consolidating said selected ones for identifying a surcharge or discount to be applied to the base cost;

classifying the vehicle in an actuarial class of insurance based upon the monitored data elements; and,

producing a final cost of vehicle insurance for the selected period from the base cost and the surcharge or discount.

- Col. 5, lines 28-43; col. 1, lines 21-30; col. 1, lines 53-56; col. 6, lines 44-55; original claim 17 from parent patent application serial number 08/592,958; and
- Col. 3, lines 45-50; col. 3, lines 12-18; col. 5, lines 8-12; col. 1, lines 21-30.

**Alternative**

5. (amended) A method of determining a cost of vehicle insurance for a selected period based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics during said period, whereby the cost is adjustable by relating the driving characteristics to predetermined safety standards that are related to a safe operation of a vehicle, the method comprising:

determining an initial insured profile prior to monitoring any data elements representative of an operating state of the vehicle or an action of a vehicle operator and a base cost of vehicle insurance based on said insured profile;

monitoring a plurality of data elements representative of [an]the operating state of [a]the vehicle or [an]the action of the vehicle operator during the selected period;

recording selected ones of the plurality of data elements when said ones are determined to have a preselected relationship to the safety standards;

consolidating said selected ones for identifying a surcharge or discount to be applied to the base cost; and,

producing a final cost of vehicle insurance for the selected period from the base cost and the surcharge or discount.

- Col. 10, lines 30-49.



**Reexamination Control No. 90/011,252**  
**Attorney Docket No. 12741-32**

**CERTIFICATE OF SERVICE**

I hereby certify that a true copy of the foregoing Brief Outline for Interview was served to the following individual by First Class United States Mail, postage prepaid, on September 8, 2011:

J. Steven Baughman  
Ropes & Gray LLP  
One International Place  
Boston, MA 02110

Respectfully submitted,

September 8, 2011 \_\_\_\_\_  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	10908542
<b>Application Number:</b>	90011252
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	4116
<b>Title of Invention:</b>	MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE
<b>First Named Inventor/Applicant Name:</b>	6,064,970
<b>Customer Number:</b>	10999
<b>Filer:</b>	James A. Collins/Nkosi Harvey
<b>Filer Authorized By:</b>	James A. Collins
<b>Attorney Docket Number:</b>	12741-32
<b>Receipt Date:</b>	08-SEP-2011
<b>Filing Date:</b>	22-SEP-2010
<b>Time Stamp:</b>	18:52:50
<b>Application Type:</b>	Reexam (Patent Owner)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Reexam Miscellaneous Incoming Letter	transforbriefoutlineforint.PDF	42800 <small>2fad4d49abb630beb2bc43311aa2cf655759322e</small>	no	1

### Warnings:

### Information:

2		briefoutlineforint.PDF	206817 <small>2696A77e07f7d758fa2299e6897f6ca60e4b3eed</small>	yes	6
<b>Multipart Description/PDF files in .zip description</b>					
<b>Document Description</b>		<b>Start</b>	<b>End</b>		
Letter Requesting Interview with Examiner		1	5		
Reexam Certificate of Service		6	6		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			249617		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: September 8, 2011 Name: James A. Collins, Reg. No. 43,557 Signature: /James A. Collins/

**BRINKS  
HOFER  
GILSON  
& LIONE**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re-Examination of: Robert J. McMillan et al.

Re-Examination Appl. No.: 90/011,252

Filing Date: September 22, 2010

U.S. Patent No.: 6,064,970

For: **MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE**

Attorney Docket No.: 12741/32

Examiner: Karin M. Reichle

Group Art Unit: 3992

Conf. No.: 4116

**TRANSMITTAL**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

**Attached is/are:**

Transmittal; Brief Outline for Interview; and Certificate of Service.

**Fee calculation:**

- No additional fee is required.
- Small Entity.
- An extension fee in an amount of \$\_\_\_\_\_ for a \_\_\_\_\_ month extension of time under 37 CFR § 1.136(a).
- A petition or processing fee in an amount of \$\_\_\_\_\_ under 37 CFR § 1.17(\_\_\_\_) .
- An additional filing fee has been calculated as shown below:

					Small Entity		Not a Small Entity		
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus			x \$26=			x \$52=	
Indep.		Minus			x 110=			x \$220=	
First Presentation of Multiple Dep. Claim					+ \$195=			+ \$390=	
					Total	\$		Total	\$

**Fee payment:**

- Please charge Deposit Account No. 23-1925 in the amount of \$\_\_\_\_\_ for \_\_\_\_\_.
- Payment by credit card in the amount of \$\_\_\_\_\_ (Form PTO-2038 is attached).
- The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

September 8, 2011  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/011,252	09/22/2010	6,064,970	12741-32	4116
10999	7590	08/26/2011	EXAMINER	
Progressive Casualty/BHGL P.O. Box 10395 Chicago, IL 60610			ART UNIT	PAPER NUMBER

DATE MAILED: 08/26/2011

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THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS  
ROPES & GRAY LLP  
PATENT DOCKETING 39/41  
ONE INTERNATIONAL PLACE  
BOSTON, MA 02110-2624

Date:

**MAILED**

**AUG 26 2011**

**CENTRAL REEXAMINATION UNIT**

**EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. : 90011252  
PATENT NO. : 6064970  
ART UNIT : 3993

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified ex parte reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the ex parte reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

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**Ex Parte Reexamination  
Advisory Action  
Before the Filing of an Appeal Brief**

Control No. 90/011,252	Patent Under Reexamination 6,064,970	
Examiner KARIN REICHLER	Art Unit 3992	

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

THE PROPOSED RESPONSE FILED 12 August 2011 FAILS TO OVERCOME ALL OF THE REJECTIONS IN THE FINAL REJECTION MAILED 14 June 2011.

1.  Unless a timely appeal is filed, or other appropriate action by the patent owner is taken to overcome all of the outstanding rejection(s), this prosecution of the present *ex parte* reexamination proceeding WILL BE TERMINATED and a Notice of Intent to Issue *Ex Parte* Reexamination Certificate will be mailed in due course. Any finally rejected claims, or claims objected to, will be CANCELLED.

THE PERIOD FOR RESPONSE IS EXTENDED TO RUN 3 MONTHS FROM THE MAILING DATE OF THE FINAL REJECTION. Extensions of time are governed by 37 CFR 1.550(c). **3 ESK**

**NOTICE OF APPEAL**

2.  An Appeal Brief is due two months from the date of the Notice of Appeal filed on \_\_\_\_\_ to avoid dismissal of the appeal. See 37 CFR 41.37(a). Extensions of time are governed by 37 CFR 1.550(c). See 37 CFR 41.37(e).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final action, but prior to the date of filing a brief, will not be entered because:
- (a)  They raise new issues that would require further consideration and/or search (see NOTE below);
  - (b)  They raise the issue of new matter (see NOTE below);
  - (c)  They are not deemed to place the proceeding in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet (See 37 CFR 1.116 and 41.33(a)).

4.  Patent owner's proposed response filed \_\_\_\_\_ has overcome the following rejection(s): \_\_\_\_\_
5.  The proposed new or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
6.  For purposes of appeal, the proposed amendment(s) a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claim(s) would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) patentable and/or confirmed: \_\_\_\_\_  
Claim(s) objected to: \_\_\_\_\_  
Claim(s) rejected: 1-80  
Claim(s) not subject to reexamination: \_\_\_\_\_

**AFFIDAVIT OR OTHER EVIDENCE**

7.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because patent owner failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
8.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence fails to overcome all rejections under appeal and/or appellant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
9.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

10.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
11.  Note the attached Information Disclosure Statement(s), PTO/SB/08, Paper No(s) \_\_\_\_\_.
12.  Other: \_\_\_\_\_.

/Karin M. Reichle/ Primary Examiner, Art Unit 3992		
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cc: Requester (if third party requester)

Continuation of 6. The proposed amendments to the claims, e.g. the independent claims 1, 4-6 and 70, raise issues with regard to support and/or clarity or, to the extent such are supported and/or understood, do not patentably distinguish over the prior art. For example:

Claims 1, 6, and 70:

Claim 1 includes the proposed amendment "generating actuarial classes of insurance from actual driving characteristics as represented by the monitored and recorded data elements, the actuarial classes comprising groupings of individuals or vehicles having a similar risk characteristic" after the other monitoring and recording steps while claims 6 and 70 include the proposed amendment "generating actuarial classes of insurance from actual driving characteristics as represented by the monitored and recorded data elements, the actuarial classes comprising groupings of individuals or vehicles having a similar risk characteristic" prior to the other steps of the claim, e.g. extracting, analyzing, grouping storing steps. (Note data elements of such amendments refer back to those of the preceding steps, i.e. claimed as "the" "monitored and recorded data elements", and are the data elements representative of "a" or "the" "vehicle" or "operator" or "the" "operator".)

First, the terminology "the monitored and recorded data elements" in claim 1 is unclear as to whether it includes "a plurality of data elements" which are monitored and therefore also the "selected ones of the plurality of data elements" which are also recorded, i.e. all the data elements of the preceding steps, or only the "selected ones of the plurality of data elements", i.e. those of the recording step only. Also, the first phrase of the amendment sets forth classes are generated from actual driving characteristics as represented by the monitored and recorded data elements, i.e. the driving characteristics of a/the vehicle or operator of the preceding step, or in other words, generating classes of actual driving characteristics/data elements. The second phrase however sets forth the classes comprise (Note, e.g. such does not set forth "further comprises") individuals (note, e.g., a plurality of such is claimed and such are not necessarily operators) or vehicles (note, e.g., again a plurality is claimed) having a similar risk characteristic (Note, e.g. no characteristic risk has been previously set forth nor is such claimed as being related to, e.g., driving/driving characteristics and/or actual characteristics). Therefore, such amendment is unclear/inconsistent as to what the classes generated represent/comprise at a minimum, e.g. do the classes represent the actual driving characteristics of a monitored and recorded operator or vehicle? Do the classes represent multiple similar risk individuals or vehicles? Something else? See also discussion infra. It is also noted that the term --by-- rather than "through" with respect to the on-board computer in claim 70 would be not only clearer but also more similar to that of claim 6.

Second, Patent Owner relies upon col. 5, lines 28-46, original claim 17 from the '958 application as well as col. 1, line 53-56 for support and further argues col. 4, lines 52-55, col. 5, lines 33-39, and col 2, lines 38-47. Such portions of the '958 application and '790 patent as well as col. 3, lines 17-18, 21-24 and 45-50, col. 4, lines 30-31 and col. 5, lines 9-12 of '790 describe the prior known system of insurance used interview and driving record data to assign drivers/vehicles to a class/classes representative of at least one characteristic/factor of the data (i.e. preexisting/preset classes representative of similar drivers/vehicles assigned thereto) for which an insurance rating is assigned based on empirical experience (e.g. past losses) of the insurer. The citations also describe the insurance rating system of '970 generating/setting new (i.e. not preexisting nor preset) actuarial classes and operator profiles relative thereto based upon/derived or developed from actual/current driving characteristics of a monitored vehicle or operator represented by data elements (i.e. monitoring and recording precedes the generating/setting of classes and the classes are representative of specific vehicle/driver) for determining rating (i.e. the vehicle or operator risk) and vehicle insurance costs (retrospective adjustment or prospective setting of premiums) of such vehicle or operator so monitored and recorded. Contrast these teachings to, e.g., proposed claims 6 and 70 in which actuarial classes are generated both prior to any monitoring i.e. the claimed monitoring step of the specific vehicle) as well as from individuals and vehicles (i.e. not necessarily the vehicle or operator being subsequently monitored) (note the classes are also not used for computing the rating of the monitored vehicle, such classes are just being generated in the claims) and to, e.g., claim 1 in which the classes appear, as best understood (see discussion in the preceding paragraph), to be derived/representative of not only the actual driving characteristics of the monitored and recorded vehicle and operator but also those of other individuals or vehicles (i.e. new classes do not appear representative of specific vehicle or operator, more like groupings of vehicles and operators set forth as known prior in the industry).

Finally, the prior art, e.g. '079, also generates classifications/classes and operator profiles relative thereto based upon/derived or developed from actual/current driving characteristics of a monitored vehicle or operator represented by monitored and recorded data elements for determining risk/safety of specific vehicle/driver, as best understood and



supported by the '970 patent, i.e. see preceding two paragraphs. Attention is invited to '079 at col. 29, line 65-col. 31, line 37 and claim 7, e.g., based on actual driving characteristics monitored, i.e. monitored and recorded data, classes/groups of data created as well as driver's current profile/performance pattern relative thereto which is rated, e.g., against individual standard, for risk determination.

Claims 4-5:

Claims 4 as proposed reads: "4. (amended) A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of: generating an initial operator profile; --generating an insured profile prior to monitoring operator driving characteristics--; monitoring the operator driving characteristics during the selected period; and deciding a cost of vehicle insurance for the period based upon the [operating] --operator driving-- characteristics monitored in that period, --the insured profile, and a base cost of insurance--. (Language added by amendment shown between double hyphens). Claim 5, first three sections, as proposed reads: 5. (amended) A method of determining a cost of vehicle insurance for a selected period based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics during said period, whereby the cost is adjustable by relating the driving characteristics to predetermined safety standards --that are related to a safe operation of a vehicle--, the method comprising: determining an initial insured profile --prior to monitoring a plurality of data elements representative of an operating state of the vehicle or an action of a vehicle operator-- and a base cost of vehicle insurance based on said insured profile; monitoring [a] --the-- plurality of data elements representative of [an] --the-- operating state of [a]-- the-- vehicle or [an] --the-- action of the vehicle operator during the selected period;" (Language added by amendment shown in between double hyphens).

First, Patent Owner sets forth, i.e. page 13 of the 8-12-11 response, that such step of insured profile generation is prior to the claimed monitoring step. However, such added generation step does not set forth whether such "monitoring" is the same as "monitoring... during the selected period" as claimed after this step in claim 4 and 5 and as set forth in the preamble of claim 5, or the same as any monitoring of the driving characteristics, i.e. before any/all periods of monitoring. (Note, e.g., "operator driving characteristics during the period" set forth in the preamble and "operator driving characteristics" set forth in the generating step with respect to the "the operator driving characteristics during the selected period" set forth in the monitoring step.)

Second, Patent Owner relies on col. 10, lines 30-49 and col. 3, line 67-col. 4, line 10 for support. These citations support generating the insured profile, i.e. so that it "is already maintained and stored", prior to the "immediately prior period", e.g. during a selected period, i.e. not any/all prior periods, see again discussion in preceding paragraph.

Finally, the prior art, e.g. Kosaka, teaches generating an insured profile prior to a period which is an "immediately prior period", as best understood and supported by the '970 patent, i.e. see preceding two paragraphs. See the discussion in the paragraph bridging pages 13-14 of the FINAL, which discussion is also referenced in part by Patent Owner on page 16 of the 8-12-11 response.

It is finally noted that the support set forth for the dependent claims on pages 30-32 of the 8-12-11, esp. that given as "the passages previously identified" is unclear, i.e. does it refer to the citations identified in the Patent Owner's response of 4-6-2011 only, see page 30, last full sentence of the 8-12-11 response, or also previous citations in the 8-12-11 response or both? Something else?

**Search Notes (continued)**



Application/Control No.

90/011,252

Examiner

KARIN REICHLE

Applicant(s)/Patent under Reexamination

6,064,970

Art Unit

3992

**SEARCHED**

Class	Subclass	Date	Examiner
NONE		8/18/2011	KMR

**SEARCH NOTES  
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR

**INTERFERENCE SEARCHED**

Class	Subclass	Date	Examiner

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR § 1.8.

**EX PARTE REEXAM**

/James A. Collins/

James A. Collins, Reg. No. 43,557

August 12, 2011

Date of Signature & Date of Transmission

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
CENTRAL REEXAMINATION UNIT

<i>Ex parte</i> Reexamination of	:	
U.S. Patent 6,064,970	:	
	:	
Robert J. McMillan, et al.	:	Confirmation No. 4116
	:	
Control No. 90/011,252	:	Examiner: Karin M. Reichle
	:	
	:	Group Art Unit: 3992
Filing Date: August 17, 1998	:	
	:	
For: MOTOR VEHICLE MONITORING SYSTEM FOR	:	Attorney Docket No. 12741-32
DETERMINING A COST OF INSURANCE	:	

Not entered-KMR  
8-18-11

**RESPONSE TO OFFICE ACTION**

In response to the Final Office Action mailed June 14, 2011, please enter the amendments below. The amendments are presented to distinguish the claimed inventions from the prior art or in response to the pending rejections.

Reexamination Control No. 90/011,252  
U.S. Patent 6,064,970

Atty. Dkt. No. 12741-32  
Page 1 of 42

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: August 12, 2011 Name: James A. Collins, Reg. No. 43,557 Signature: /James A. Collins/

**BRINKS  
HOFER  
GILSON  
& LIONE**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re-Examination of: Robert J. McMillan et al.  Re-Examination Appl. No.: 90/011,252  Filing Date: September 22, 2010  U.S. Patent No.: 6,064,970  For: MOTOR VEHICLE MONITORING SYSTEM FOR DETERMINING A COST OF INSURANCE  Attorney Docket No.: 12741/32	Examiner: Karin M. Reichle  Group Art Unit: 3992  Conf. No.: 4116
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**TRANSMITTAL**

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 Commissioner for Patents  
 PO Box 1450  
 Alexandria, VA 22313-1450

Sir:

**Attached is/are:**

Transmittal; Response to Office Action; Interview Summary; Attachment 1; and Certificate of Service.

**Fee calculation:**

- No additional fee is required.
- Small Entity.
- An extension fee in an amount of \$\_\_\_\_\_ for a \_\_\_\_\_-month extension of time under 37 CFR § 1.136(a).
- A petition or processing fee in an amount of \$\_\_\_\_\_ under 37 CFR § 1.20(\_).
- An additional filing fee has been calculated as shown below:

					Small Entity		Not a Small Entity		
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus	73		x \$26=			x \$52=	
Indep.		Minus	6		x 110=			x \$220=	
First Presentation of Multiple Dep. Claim					+ \$195=			+ \$390=	
					Total	\$		Total	\$

**Fee payment:**

- Please charge Deposit Account No. 23-1925 in the amount of \$\_\_\_\_\_ for \_\_\_\_\_.
- Payment by credit card in the amount of \$\_\_\_\_\_ (Form PTO-2038 is attached).
- The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

August 12, 2011  
Date

/James A. Collins/  
James A. Collins (Reg. No. 43,557)

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR § 1.8.

**EX PARTE REEXAM**

/James A. Collins/

James A. Collins, Reg. No. 43,557

August 12, 2011

Date of Signature & Date of Transmission

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
CENTRAL REEXAMINATION UNIT

<i>Ex parte</i> Reexamination of	:	
U.S. Patent 6,064,970	:	
Robert J. McMillan, et al.	:	Confirmation No. 4116
Control No. 90/011,252	:	Examiner: Karin M. Reichle
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Reexamination Control No. 90/011,252  
U.S. Patent 6,064,970

Atty. Dkt. No. 12741-32  
Page 1 of 42

## AMENDMENTS TO THE CLAIMS

The listing of the claims replaces all prior versions.

1. (amended) A method of generating a database comprising data elements representative of operator or vehicle driving characteristics, the method comprising:

monitoring a plurality of the data elements representative of an operating state of a vehicle or an action of the operator during a selected time period; [and,]

recording selected ones of the plurality of data elements into the database when said ones are determined to be appropriate for recording relative to determining a cost of insurance for the vehicle during the selected time period, said ones including, a time and location of vehicle operation and a corresponding log of vehicle speed for the time and location; and

generating actuarial classes of insurance from actual driving characteristics as represented by the monitored and recorded data elements, the actuarial classes comprising groupings of individuals or vehicles having a similar risk characteristic.

2. (cancelled).

3. (amended) The [database] method as defined in claim 1 [2] wherein the data elements comprise raw data elements, derived data elements and calculated data elements.

4. (amended) A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating an initial operator profile;

generating an insured profile prior to monitoring operator driving characteristics;

monitoring the operator driving characteristics during the selected period; and

deciding a cost of vehicle insurance for the period based upon the [operating] operator driving characteristics monitored in that period, the insured profile, and a base cost of insurance.

5. (amended) A method of determining a cost of vehicle insurance for a selected period based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics during said period, whereby the cost is adjustable by relating the driving characteristics to predetermined safety standards that are related to a safe operation of a vehicle, the method comprising:

determining an initial insured profile prior to monitoring a plurality of data elements representative of an operating state of the vehicle or an action of a vehicle operator and a base cost of vehicle insurance based on said insured profile;

monitoring [a] the plurality of data elements representative of [an] the operating state of [a] the vehicle or [an] the action of the vehicle operator during the selected period;

recording selected ones of the plurality of data elements when said ones are determined to have a preselected relationship to the safety standards;

consolidating said selected ones for identifying a surcharge or discount to be applied to the base cost; and,

producing a final cost of vehicle insurance for the selected period from the base cost and the surcharge or discount.

6. (amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

generating actuarial classes of insurance from actual driving characteristics that are monitored and recorded, the actuarial classes comprising groupings of individuals or vehicles having a similar risk characteristic;

extracting one or more data elements by a computer programmed to monitor sensor data from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period;

analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group of elements; and,

correlating the group data values to preset values in a second memory and generating an output data value based on the correlation wherein the output data value is used to compute an insurance rating for the vehicle [FOR] for the data collection period.

7. (original) The method according to claim 6, further including the steps of:
  - determining if the one or more data elements indicate one or more predetermined triggering events, where if the determination is positive, correlating the one or more data elements to one or more types of triggering events stored in a third memory; and,
  - storing and transmitting a signal corresponding to the determined triggering event to a receiving system.
  
8. (original) The method according to claim 6, further including the steps of:
  - determining if the one or more data elements indicate one or more predetermined triggering events, where if the determination is positive, correlating the one or more data elements to one or more types of triggering events stored in a third memory; and,
  - storing or transmitting a signal corresponding to the determined triggering event to a receiving system.
  
9. (original) The method as defined in claim 6 wherein the output data value is additionally used for computing an insurance rating for the vehicle for a future data collection period.
  
10. (original) The method according to claim 6, further comprising the steps of:
  - using safety or other actuarial standard values as the preset values; and,
  - generating an adjusted insurance cost as the output data value.
  
11. (original) The method according to claim 10, further comprising the steps of:
  - using location and time as the one or more data elements which are compared to the safety or other actuarial standard values to generate the adjusted insurance cost.
  
12. (original) The method according to claim 11 wherein:
  - the adjusted insurance cost can be for a prospective or retrospective basis.
  
13. (original) The method according to claim 6, further comprising the steps of:
  - using safety or other actuarial standard values as the preset values; and,
  - generating an adjusted underwriting cost as the output data value.



14. (original) The method according to claim 13, further comprising the steps of:  
using location and time as the one or more data elements which are compared to the safety or other actuarial standard values to generate the adjusted underwriting cost.

15. (original) The method according to claim 14 wherein:  
the adjusted underwriting cost can be for a prospective or retrospective basis.

16. (cancelled).

17. (twice amended) The method according to claim 6, further comprising:  
determining a location of the vehicle from vehicle tracking navigation signals; and  
storing the location of the vehicle in the first memory when the one or more data  
elements are stored.

18. (twice amended) The method according to claim 6, further comprising storing a time or date  
when the one or more data elements are stored.

19. (cancelled).

20. (twice amended) The method according to claim 6, further comprising:  
calculating a rate of acceleration of the vehicle based on the one or more data elements;  
and  
determining whether the rate of acceleration would result in a surcharge or discount  
during an insurance billing process.

21. (cancelled).

22. (twice amended) The method according to claim 6, further comprising:  
recording a number of excessive or sudden acceleration events during the data collection  
period.

23. (twice amended) The method according to claim 6, further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data,

24. (twice amended) The method according to claim 6, further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data; and

determining whether the rate of braking would result in a surcharge or discount during an insurance billing process.

25. (twice amended) The method according to claim 6, further comprising:

monitoring a rate of braking associated with the vehicle by the computer programmed to monitor sensor data;

determining whether the rate of braking has a preselected relationship to a predetermined safety standard; and

recording the rate of braking in the first memory in response to determining that the rate of braking has the preselected relationship to the safety standard.

26. (twice amended) The method according to claim 6, further comprising:

recording a number of sudden braking events or hard braking situations during the data collection period.

27. (twice amended) The method according to claim 6, further comprising:  
determining a location of the vehicle through navigation signals;  
monitoring and recording speed data associated with the location of the vehicle through  
the computer programmed to monitor sensor data;  
identifying a predetermined speed limit associated with the location of the vehicle; and  
comparing the speed data to the predetermined speed limit to determine that the speed  
data indicates an occurrence of an excessive speed event above the predetermined speed limit.

28. (previously presented) The method according to claim 27, further comprising measuring a  
time duration of the excessive speed event above the predetermined speed limit.

29. (twice amended) The method according to claim 6, further comprising:  
determining a location of the vehicle through navigation signals;  
monitoring and recording speed data associated with the location of the vehicle through  
the computer programmed to monitor sensor data;  
extracting speed limit data associated with the location of the vehicle from a computer  
database;  
comparing the speed data to the speed limit data to determine whether the speed data  
indicates an occurrence of an excessive speed event above the speed limit data; and  
recording the speed data in the first memory in response to determining that the speed  
data indicates an occurrence of an excessive speed event above the speed limit data.

30 - 31. (cancelled).

32. (twice amended) The method according to claim 6, further comprising:  
monitoring time of day driving data associated with the vehicle;  
determining an amount of time that the vehicle is driven at high risk times; and  
determining an insurance cost based on the amount of time that the vehicle is driven at  
high risk times.

33. (cancelled).

34. (twice amended) The method according to claim 6, further comprising:  
monitoring driving route data associated with a location of the vehicle;  
determining an amount of time that the vehicle is driven in high risk locations; and  
determining an insurance cost based on the amount of time that the vehicle is driven in  
high risk locations.

35. (twice amended) The method according to claim 6, further comprising:  
recording a lateral acceleration of the vehicle.

36 - 38. (cancelled).

39. (twice amended) The method according to claim 6, further comprising prospectively setting  
an insurance cost associated with the vehicle based on at least one of the one or more data  
elements.

40. (cancelled).

41. (twice amended) The method according to claim 6, further comprising:  
using one or more of the one or more data elements to determine an insurance actuarial  
class associated with the vehicle; and  
using one or more of the one or more data elements to determine a surcharge or discount  
to be applied to a base cost of insurance associated with the vehicle.

42 - 48. (cancelled).

49. (twice amended) The method according to claim 6, further comprising:

determining acceleration data associated with the vehicle based on at least one of the one or more data elements; and

determining an insurance actuarial class based on the acceleration data.

50. (twice amended) The method according to claim 6, further comprising:

determining braking data associated with the vehicle based on at least one of the one or more data elements; and

determining an insurance actuarial class based on the braking data.

51. (twice amended) The method according to claim 6, wherein the computer is an on-board computer comprising a computer processor and computer memory.

52. (previously presented) The method according to claim 6, wherein the step of extracting comprises communicating one or more raw data elements to a computer through an on-board diagnostics (OBD) connector of the vehicle.

53. (previously presented) The method according to claim 6, wherein the at least one sensor comprises an in-vehicle sensor in operative connection with a data bus of the vehicle, and wherein the step of extracting comprises monitoring the at least one operating state of the vehicle through the at least one in-vehicle sensor.

54. (previously presented) The method according to claim 6, wherein the at least one sensor comprises a power train sensor coupled with the vehicle, an in-vehicle electrical sensor coupled to the vehicle, and an in-vehicle body sensor coupled with the vehicle;

wherein the one or more data elements comprise a first data element, a second data element, and a third data element;

wherein the step of extracting comprises:

extracting the first data element from the power train sensor coupled with the vehicle;

extracting the second data element from the in-vehicle electrical sensor coupled to the vehicle; and

extracting the third data element from the in-vehicle body sensor coupled with the vehicle.

55. (previously presented) The method according to claim 6, further comprising:

analyzing the one or more data elements to identify a trigger event requiring additional action; and

transmitting a location of the vehicle by an on-board computer to a remote control center in response to determining that the one or more data elements comprise the trigger event.

56 - 61. (cancelled).

62. (amended) The method according to claim 6, further comprising generating an insurance cost based on at least one of the one or more data elements and at least one of the actuarial classes.

63. (cancelled).

64. (twice amended) The method according to claim 62 where the insurance cost is for a prospective or retrospective basis.

65 - 67. (cancelled).

68. (twice amended) The method according to claim 6, further comprising:

calculating a distance traveled by the vehicle based on at least one of the one or more data elements extracted from the at least one sensor;

determining speed data associated with the vehicle based on at least one of the one or more data elements;

recording a rate of change in vehicle speed with respect to time based on at least one of the one or more data elements extracted from the at least one sensor; and

processing the distance traveled, the rate of change in vehicle speed with respect to time, and the speed data to compute the insurance rating for the vehicle.

69. (previously presented) The method according to claim 68, further comprising:

monitoring time of day driving data associated with the vehicle; and

processing the time of day driving data to compute the insurance rating for the vehicle.

70. (amended) A method of monitoring a human controlled power source driven vehicle, the method comprising:

generating actuarial classes of insurance from actual driving characteristics that are monitored and recorded, the actuarial classes comprising groupings of individuals or vehicles having a similar risk characteristic;

extracting one or more data elements through an on-board computer from at least one sensor wherein the one or more elements are of at least one operating state of the vehicle and the at least one human's actions during a data collection period;

analyzing, grouping, and storing the one or more data elements as group data values in a first memory related to a predetermined group elements;

correlating the group data values to preset values related to safety standards in a second memory and generating an output data value based on the correlation; and

computing an insurance rating based upon the output data value for the vehicle for the data collection period.

71 - 75. (cancelled).

76. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a discount, and wherein producing the final cost of vehicle insurance comprises applying the discount to the base cost of vehicle insurance.

77. (previously presented) The method of claim 5, wherein the surcharge or discount comprises a surcharge, and wherein producing the final cost of vehicle insurance comprises applying the surcharge to the base cost of vehicle insurance.

78 - 79. (cancelled).

80. (amended) The method according to claim 6, further comprising:

determining speed data associated with the vehicle based on at least one of the one or more data elements;

identifying a predetermined speed limit;

comparing the speed data to the predetermined speed limit to determine that the speed data indicates an occurrence of an excessive speed event above the predetermined speed limit;

measuring an amount of time that a speed of the vehicle is above the predetermined speed limit; and

computing the insurance rating for the vehicle based on the amount of time that the speed of the vehicle is above the predetermined speed limit.



## REMARKS

The Patent Owner appreciates the courtesy Examiner Reichle, Supervisor Harrison, and Examiner Cabrera extended during our July 18<sup>th</sup> interview. The exchange and suggestions were insightful and practical. In accordance with those discussions, the following response attempts to put the claims in condition for allowance, *cancel*s thirty-five claims and removes issues from appeal. Because the newly added limitations provide a distinction over the prior art, the Patent Owner respectfully requests entry of proposed amendments and the withdrawal of the pending rejections.

### I. INTRODUCTION

The Patent Owner's inventions, as defined in independent claims 4 and 5, are directed to insuring a vehicle operator (claim 4) and determining a cost of vehicle insurance (claim 5). The methods comprise the steps of generating an insured profile *prior to the claimed monitoring of operator driving characteristics* or *prior to the claimed monitoring of data elements that represent the operating state of the vehicle or actions of an operator*.

Claims 1, 6, and 70 are directed to methods that generate a database (claim 1) and monitor a driven vehicle (claims 6 and 70). The methods generate actuarial classes of insurance from actual driving characteristics. The claimed actuarial classes include groupings of individuals or vehicles that share a similar risk characteristic. These new and more precise actuarial classes are considered to be better predictors because they are based on actual use of the vehicle and the behaviors demonstrated by the driver. *See* '970 Patent at col. 4, lines 52-55.

## II. EXEMPLARY SUPPORT FOR INDEPENDENT CLAIM CHANGES UNDER – 37 C.F.R. § 1.530(e)

Claims 4 and 5 are amended to include insured profiles that are generated prior to the claimed monitoring of operator driving characteristics or operating state of the vehicle. Support for this amendment can be found at least in the following passages:

At step 210, the vehicle sensor record file and the trigger event response file are consolidated. . . . At step 212, all the information comprising the insured profile, which is already maintained and stored in other insurance files, is applied to the consolidated activity files for the immediately prior period. . . . At step 214, the acquired consolidated file information from step 210 and the overall insured profile acquired at step 212 are combined and processed against a surcharge or discount algorithm file, which include the specific factors for the various usage patterns and trigger events. The surcharges and discounts are continuously adjusted based on the loss results associated with driving behaviors demonstrated. Finally at step 216, the appropriate billing is produced showing the charges for insurance and other services . . . *Id.* at col. 10, lines 30-49 (emphasis added).

Also, see col. 3, line 67-col. 4, line 10 of the '970 Patent that teaches that the cost of insurance may be based upon monitored operator driving characteristics, an insured profile, and a base cost of insurance.

Claims 1, 6, and 70 are amended to indicate that the methods generate actuarial classes of insurance from actual driving characteristics that are monitored and recorded. Support for these amendments can be found at least in the following passage:

It is yet another object of the present invention to generate actuarial classes and operator profiles relative thereto based upon actual driving characteristics of the vehicle and driver, as represented by the monitored and recorded data elements for providing a more knowledgeable, enhanced insurance rating precision.

The subject new insurance rating system retrospectively adjusts and prospectively sets premiums based on data derived from motor vehicle operational characteristics and driver behavior through the generation of new actuarial classes determined from such characteristics and behavior, which classes heretofore have been unknown in the insurance industry. The invention comprises an integrated system to extract via multiple sensors, screen, aggregate and apply for insurance rating purposes, data generated by the

actual operation of the specific vehicle and the insured user/driver. *Id.* at col. 5, lines 28-46 (emphasis added); *see* also col. 1, lines 53-56.

And, the amendments are further supported by original claim 17 from parent patent application serial number: 08/592,958, now U.S. Pat. No. 5,797,134 that recites:

17. A method of generating an actuarial class system for determining vehicle insurance costs for retrospectively adjusting and prospectively setting premiums based on data derived from motor vehicle operational characteristics and driver behavior, comprising:  
monitoring a plurality of raw data elements representing vehicle operating states and driver actions;  
recording selected ones of the raw data elements in a vehicle record files when ones are identified as having a relationship material to determination of a cost of insurance;  
setting a plurality of actuarial classes associated with corresponding degrees of safety of operation of the vehicle wherein said actuarial classes are derived from aggregating selected ones of the raw data elements; and,  
consolidating said vehicle record files with selected actuarial classes for determining a corresponding cost of insurance for the vehicle in correspondence with a one of the actuarial classes. U.S. Pat, 5,797,134, File History, Paper #1, pg. 24. (Attachment 1)

Claim 70 is further amended to reflect the original language recited in claim 6.<sup>1</sup> The amendment adopts the examiner's recognition that the preset values are related to safety standards. The amendment further recognizes that a computer extracts data from the sensors.

With reference to FIG. 3, an exemplary motor vehicle is shown in which the necessary apparatus for implementing the subject invention is included. An on-board computer 300 monitors and records various sensors and operator actions . . . '970 Patent at col. 6, lines 44-49 and at col. 8, lines 26-31.

The Patent Owner respectfully submits that these passages support the changes made to the independent claims in accordance with 37 C.F.R. § 1.530(e).

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<sup>1</sup> The Patent Owner respectfully submits that the amendment to claim 70 obviates the rejection under 35 U.S.C. § 305. Office Action at 193-194, (June 14, 2011).

### III. REJECTION OF CLAIMS 4 AND 5 BASED ON KOSAKA ('868)

Claims 4 and 5 stand rejected under 35 U.S.C. §102(b) as being anticipated by the '868. These claims are directed to methods of insuring a vehicle operator and determining a cost of vehicle insurance, respectively. The claims further require generating an insured's profile *prior to monitoring* operator driving characteristics or *prior to monitoring* data elements representative of an operating state of a vehicle or an action of a vehicle operator.

Kosaka does not disclose generating an insured's profile *prior to monitoring* operator driving characteristics or *prior to monitoring* a plurality of data elements representative of an operating state of a vehicle or an action of a vehicle operator. As explained in the current Office Action the:

'868 also teaches such because '868 teaches determining the premium for a specified period from the determined premium for a prior period (note such prior determined premium is based on individual information, e.g. the actual driving characteristics of the individual during that prior period and some **standard or basic cost**, e.g. the premium at the start of that prior period) to which a surcharge, i.e. an increase, or discount, i.e. a decrease, is applied to producing the final cost of vehicle insurance, i.e. the premium for the specified period, e.g. hourly or daily, i.e. surcharge or discount is **premium change**. Office Action at 14, (June 14, 2011)(emphasis in the original)

This explanation, however, does not show or suggest generating an insured profile *prior to monitoring* driving characteristics or an operating state of a vehicle or an action of a vehicle operator. As stated above, the '868 premiums are based on the actual driving characteristics. Nothing in Kosaka generates the claimed insured profile *prior to monitoring* operator driving characteristics or *prior to monitoring* a plurality of data elements representative of an operating state of a vehicle. The Patent Owner appreciates the Examiner's recognition of this patentable difference during our interview and respectfully requests reconsideration in view of the claim amendments.

Further, multiple limitations in claim 5 derive their antecedent basis from the preamble of the claim and provide context for those limitations. The antecedent basis of the claim limitation "the selected period," is the selected period upon which monitoring, recording, and communicating data occurs as recited in the preamble. Likewise, the antecedent basis of the claim limitation "the safety standards," are the "*predetermined safety standards related to the safe operation of the vehicle*" recited in the preamble. Because the preamble provides antecedents for the ensuing claim terms and limits the breadth of those terms, the preamble of claim 5 limits the scope of the claim.<sup>2</sup> As such, the step of recording selected ones of the plurality data elements occurs during the selected monitoring period, which is also not taught by Kosaka.

For these reasons, the Patent Owner respectfully requests the withdrawal of the rejections of claims 4 and 5.

#### **IV. REJECTION OF CLAIMS 1-3 AND 6-80 BASED ON BOUCHARD ('079), KOSAKA ('868), & BLACK MAGIC**

Independent claims 1, 6, and 70 also stand rejected under 35 U.S.C. 103 as being unpatentable over Bouchard ('079), in view of Kosaka ('868) and Black Magic. These claims are directed to monitoring a vehicle or driver. The claims further require generating actuarial classes of insurance from the actual monitored and recorded driving characteristics. The actuarial classes comprise groupings of individuals or vehicles having a similar risk characteristic. Bouchard *does not generate* actuarial classes of insurance; Bouchard *does not generate* groupings from actual driving characteristics; and Bouchard *does not generate*

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<sup>2</sup> Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1339 (Fed. Cir. 2003); see also C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1350 (Fed. Cir. 1998).

groupings of individuals or vehicles having a similar risk characteristic.

The '079 patent discloses an event recording apparatus (ERA) that records selectable vehicle performance, operational status, and/or environment information. The ERA records information useful for accident analysis and driver fitness evaluation. In the preferred embodiment, the information that is recorded is also used to determine a baseline performance standard based on the driver's own past performance against which a driver's present performance can be measured. '079 Patent at col. 5, lines 57-63 (emphasis added). The "ERA and the driver fitness evaluation system generates a profile of the driver based upon the information that is stored in the ERA." *Id.* at col. 6, lines 13-15 (emphasis added). The '079 Patent further explains:

The system processor monitors each of the external conditions and activities that are relevant to determining the fitness of the driver to operate the vehicle. In the preferred embodiment of the present invention, if driving performance is found to be below the individual standard calculated for that particular driver at any time during a trip, the driver is alerted to the fact that driving performance is not up to the calculated individual minimum standard. If the driver's performance continues to degrade (or, in an alternative embodiment, does not improve), an indication of the driver's performance is communicated to a remote site to alert a dispatcher or controller. If the driver's performance degrades still further, the vehicle ceases operating after a sufficient warning is provided to the driver that such action is imminent. Each step of the process, along with the data that is collected at each step of the process, is recorded in the ERA. *Id.* at col. 6, lines 16-32 (emphasis added).

...

By selecting appropriate outputs from the sensors and radar system which have been recorded in the ERA, (which may include the outputs recorded during past and present trips) a profile of the driver is formed. The driver's performance over a recent period of time is compared to a standard derived from the personal profile calculated using the driver's past performance. The results of the comparison are used to determine the driver's current fitness to operate a vehicle. In the preferred embodiment of the present invention, if the driver's performance at any time during a trip is found to be below the personal standard calculated for that driver, the driver is alerted that driving performance

is not up to the driver's personal standard. *Id.* at col. 9, line 59-col. 10, line 4 (emphasis added).

The '079 Patent further discloses that the information recorded in the ERA may be accessed by a microcontroller and applied to a fitness algorithm which (1) generates a *personalized performance standard* for a driver associated with the ERA, and (2) *compares the driver's performance* over a recent and relatively short period of time to the driver's own personalized performance standard. The flow chart of the fitness algorithm shown in FIG. 18 shows the various personalized profiles that are evaluated. *See Id.* at col. 29, line 67-col. 30, line 6. These personalized profiles include characterizations of the history of the throttle, speed, headway, etc. *Id.* at col. 30, lines 29-65.

Similarly, Kosaka does not rely on or generate actuarial classes (e.g., groupings of vehicles or drivers having a similar risk characteristic) of insurance from the actual driving characteristics that are monitored or recorded. In Kosaka the detection and assessment of risk may occur through fuzzy logic, which dictionaries define as vague concepts and inexact decision-making processes<sup>3</sup> and Kosaka recognizes as vague empirical knowledge. Kosaka at pg. 4, lines 18-24.

Kosaka further discloses that the:

[d]etection of states contributing to risk and calculation of risk evaluation values by fuzzy logic were carried out in real time using an external sensor and internal sensor, but the risk evaluation values also may be determined subsequently, or the change in insurance premium may be calculated subsequently from the determined risk evaluation values. In addition, fuzzy logic was used as the means for determining risk evaluation values in this example of embodiment, but determination may be carried out without using fuzzy logic. Calculation may also be carried out using a common insurance table. *Id.* at pg. 6, lines 39-56.

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<sup>3</sup> *Jargon - An Informal Dictionary of Computer Terms*, 1993; Response to Office Action, Attachment 4 (April 6, 2011).

While Kosaka does not define the term “common insurance table,” the ’970 Patent teaches that the claimed actuarial classes are unlike a “common insurance table.” To illustrate, the ’970 Patent explicitly states that actuarial classes generated from actual driving characteristics are *new* and were *unknown in the insurance industry*.

The subject new insurance rating system retrospectively adjusts and prospectively sets premiums based on data derived from motor vehicle operational characteristics and driver behavior through the generation of new actuarial classes determined from such characteristics and behavior, which classes heretofore have been unknown in the insurance industry. ’970 Patent at col. 5, lines 33-39 (emphasis added).

The generations of actuarial insurance classes from actual monitored and recorded driving characteristics *are not* a common insurance table. Furthermore, the ’970 Patent even describes the drawbacks of conventional methods:

A principal problem with such conventional insurance determination systems is that much of the data gathered from the applicant in the interview is not verifiable, and even existing public records contain only minimal information, much of which has little relevance towards an assessment of the likelihood of a claim subsequently occurring. In other words, current rating systems are primarily based on past realized losses. None of the data obtained through conventional systems necessarily reliably predicts the manner or safety of future operation of the vehicle. *Id.* at col. 2, lines 38-47.

Since Black Magic does not disclose generating actuarial classes from actual driving characteristics, the Patent Owner respectfully submits that the claimed actuarial classes generated from actual driving characteristics is not disclosed or suggested in Bouchard, in view of Kosaka and Black Magic. Therefore, the Patent Owner respectfully requests reconsideration and withdrawal of the rejection of independent claims 1, 6, and 70 and dependent claims 3, and 7-15, 17, 18, 20, 22-29, 32, 34, 35, 39, 41, 49-55, 62, 64, 68-70, 76, 77, and 80.

## **V. 35 U.S.C. § 112 SECOND PARAGRAPH REJECTIONS**

To address the examiner’s concerns that certain claim language is indefinite, claims are



amended, explanations are provided, and over half of the added claims (34) are cancelled. If more clarification or amendments are needed, the Patent Owner respectfully requests an interview that may serve to develop and clarify the issues, lead to a mutual understanding between the examiner and the Patent Owner, and provide a mutual opportunity between the parties to suggest improved claim language that would overcome the rejection under §112 2nd paragraph. *See* Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. § 112 and for Treatment of Related Issues in Patent Applications, Federal Register / Vol. 76, No. 27, at 7169-70 (February 2, 2011) (encouraging examiners to initiate interviews if an interview can provide a benefit to an applicant attempting to overcome an indefiniteness rejection). To address the essence of some rejections, the responses below directly answer the questions presented in the Office Action.

A. Claim 17: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 17 *further requires* storing a location of the vehicle in the first memory *when the* one or more data elements are stored in the first memory by claim 6. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

B. Claim 18: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 18 *further requires* storing a time or date in the first memory *when* the one or more data elements are stored in the first memory by claim 6. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

C. Claim 20: The Patent Owner submits that the rejection is obviated by appropriate

amendment. Amended claim 20 requires all of the acts recited in claim 6 and *further requires* calculating a rate of acceleration of the vehicle based on the one or more data elements. It *also requires* determining whether the rate of acceleration would result in a surcharge or discount during an insurance billing process. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

D. Claim 22: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent describes recording excessive rates of acceleration/sudden acceleration events during the data collection period. Office Action at 63, (June 14, 2011). In view of this recognition and the pending amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

E. Claim 23: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording a rate of braking. *See* Office Action at 63; '970 Patent, col. 6, lines 29-31, and 42. The disclosure also teaches that a computer monitors and records data generated by the various sensors, including the rate of braking. *Id.* at col. 6, lines 46-48 and lines 29-30. In view of the amendment to claim 23, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

F. Claim 24: The Patent Owner submits that the rejection is obviated by appropriate amendment. Amended claim 24 requires all of the acts recited in claim 6 and *further requires* monitoring a rate of braking by an on-board computer that monitors and records various sensors. *Id.* at col. 6, lines 46-48. It *also requires* determining whether the rate of braking would result in

a surcharge or discount during an insurance billing process. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

G. Claim 25: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording a rate of braking. Office Action at 63; '970 Patent, col. 6, lines 29-31, and 42. The Office Action further recognizes that the monitoring and recording is related to safe operations. Office Action at 67. The disclosure teaches that a computer monitors and records the data generated by the various sensors, including the rate of braking. '970 Patent at col. 6, lines 46-48 and lines 29-30 and line 41. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

H. Claim 26: The Patent Owner submits that the rejection is obviated by appropriate amendment. Patent Owner appreciates the Office Action's recognition that the '970 Patent describes recording excessive hard braking situations and the number of braking situations. *See* Office Action at 68. In view of this amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

I. Claim 27: The Patent Owner submits that the rejection is obviated by appropriate amendment. The Patent Owner appreciates the Office Action's recognition that the '970 Patent discloses monitoring and recording speed data, monitoring and recording vehicle speed in excess of predetermined speed limits . . . in combination with location data. Office Action at 70; '970 Patent col. 8, lines 46-52. In view of this recognition and the pending amendment, the Patent Owner respectfully requests withdrawal of the pending §112 2nd paragraph rejection.

J. Claim 28: The Patent Owner submits that the rejection is obviated by appropriate