

09/550,426

SYSTEM FOR PROVIDING TRAFFIC INFORMATION

ABSTRACT OF THE DISCLOSURE

5 A system for providing traffic information to a
plurality of mobile users connected to a network. The
system comprises a plurality of traffic monitors, each
comprising at least a traffic detector and a transmitter,
the traffic detector generating a signal in response to
vehicular traffic and the transmitter transmitting the
10 signal. A receiver receives the signals from the traffic
monitors. A computer system is connected to the receiver
and is further connected to the network. The computer
system in response to a request signal received from one
of the users transmits in response thereto information
15 representative of the signals transmitted by the traffic
monitoring units. Alternative systems for gathering
traffic information are disclosed.

2011033210500

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

SYSTEM FOR PROVIDING TRAFFIC INFORMATION

the specification of which

is attached hereto.

was filed on _____ as
Application Serial No. _____
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
(Number)	(Country)	(Day/Month/Year Filed)		
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
(Number)	(Country)	(Day/Month/Year Filed)		
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No
(Number)	(Country)	(Day/Month/Year Filed)		

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

<u>60/130,399</u>	<u>4/19/99</u>
(Application Serial No.)	(Filing Date)
<u>60/166,868</u>	<u>11/22/99</u>
(Application Serial No.)	(Filing Date)
<u>60/189,913</u>	<u>3/16/00</u>
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120, of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

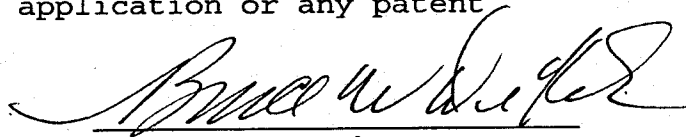
(Application Ser. No.)	(Filing Date)	(Status) (patented, pending, abandoned)
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(Application Ser. No.)	(Filing Date)	(Status) (patented, pending, abandoned)
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I hereby appoint Jacob E. Vilhauer, Jr., Reg. No. 24,885, Charles D. McClung, Reg. No. 26,568, Dennis E. Stenzel, Reg. No. 28,763, Donald B. Haslett, Reg. No. 28,855, William O. Geny, Reg. No. 27,444, J. Peter Staples, Reg. No. 30,690, Nancy J. Moriarty, Reg. No. 40,733, Kevin L. Russell, Reg. No. 38,292, Bruce W. DeKock, Reg. No. 40,585, and Timothy A. Long, Reg. No. 28,876, all of the firm of CHERNOFF, VILHAUER, MCCLUNG & STENZEL, L.L.P., 1600 ODS Tower, 601 S.W. Second Avenue, Portland, Oregon 97204, telephone No. (503) 227-5631, my attorneys, jointly and individually, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

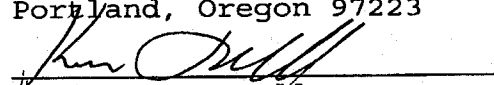
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: 4/13/00
 Full name of 1st joint inventor
 Residence
 Citizenship
 Post Office Address



Bruce W. DeKock
 Portland, Oregon
 U.S.A.
 8850 S.W. 71st Place
 Portland, Oregon 97223

Dated: 4/13/00
 Full name of 2nd joint inventor
 Residence
 Citizenship
 Post Office Address



Kevin L. Russell
 Portland, Oregon
 U.S.A.
 2910 SW Collins Court
 Portland, Oregon 97219

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT EXAMINING OPERATIONS

PATENT APPLICATION

Applicant : DeKOCK, et al. Group Art Unit:
Serial No.: Examiner:
Filed : (Concurrently Herewith)
Title : SYSTEM FOR PROVIDING TRAFFIC INFORMATION

STATEMENT OF STATUS AS SMALL ENTITY
IN ACCORDANCE WITH 37 CFR §1.27

STATEMENT OF:

I, the undersigned, hereby verify that:

I am:

- [X] one of the inventors of the above-identified invention and I qualify as an independent inventor in accordance with 37 CFR §1.9(c)
- [] an individual assignee/licensee/owner of exclusive/nonexclusive rights in the above-identified invention and I would be classified as an independent inventor in accordance with 37 CFR §1.9(c) if I had made the above-identified invention
- [] the _____ of _____ and have authority to act on behalf of said Company, that said Company qualifies as a small business concern as defined in 37 CFR §1.9(d) in that the number of employees of said Company including those of its affiliates, as defined in 37 CFR §1.9(d), does not exceed 500 persons, and that said Company is the assignee of exclusive rights in the above-identified invention

AND that said I have not assigned, granted, conveyed, or licensed any rights in the invention except to:

A partnership comprised of four individuals, namely Kevin L. Russell, Bruce W. DeKock, Richard J. Qian, and Wes Okamoto.



Bib Data Sheet



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER 09/550,476	FILING DATE 04/14/2000 RULE -	CLASS 701	GROUP ART UNIT 3661	ATTORNEY DOCKET NO. BWD-7118.004
APPLICANTS Bruce W. DeKock, Portland, OR ; Kevin L Russell, Portland, OR ; Richard J. Qian, Camas, WA ;				
** CONTINUING DATA ***** <i>Yes MYM</i> THIS APPLN CLAIMS BENEFIT OF 60/130,399 04/19/1999 WHICH CLAIMS BENEFIT OF 60/166,868 11/22/1999 WHICH CLAIMS BENEFIT OF 60/189,913 03/16/2000				
** FOREIGN APPLICATIONS ***** <i>None MYM</i>				
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY ** ** 06/29/2000				
Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no 35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged <i>Marthe Marc Coleman MYM</i> Examiner's Signature Initials	STATE OR COUNTRY OR	SHEETS DRAWING 15	TOTAL CLAIMS 38	INDEPENDENT CLAIMS 3
ADDRESS Bruce W DeKock 1600 ODS Tower 801 S W Second Avenue Portland ,OR 97204				
TITLE System for providing traffic information				
FILING FEE RECEIVED 507	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

04/27/2000 SCARMICH 00000810 09550476

01 FC:201	345.00 OP
02 FC:203	162.00 OP

*M
Abila*

PTO-1556
(5/87)

*U.S. GPO: 1999-459-082/19144

Exhibit E
Page 148 of 311

PATENT APPLICATION FEE DETERMINATION RECORD

Effective December 29, 1999

Application or Docket Number

09/550476

CLAIMS AS FILED - PART I

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	38 minus 20=	* 18
INDEPENDENT CLAIMS	3 minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT		

* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE

OR

OTHER THAN SMALL ENTITY

RATE	FEE
	345.00
X\$ 9=	162
X39=	
+130=	
TOTAL	507

RATE	FEE
	690.00
X\$18=	
X78=	
+260=	
TOTAL	

CLAIMS AS AMENDED - PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 38 Minus	** 38	= 0
Independent	* 3 Minus	*** 3	= 0
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			

SMALL ENTITY OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

(Column 1) (Column 2) (Column 3)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 38 Minus	** 38	=
Independent	* 3 Minus	*** 3	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

(Column 1) (Column 2) (Column 3)

AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	* 34 Minus	** 38	= -
Independent	* 3 Minus	*** 3	= -
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			

RATE	ADDITIONAL FEE
X\$ 9=	
X39=	
+130=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X78=	
+260=	
TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."

***If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.



UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER SECRETARY OF COMMERCE FOR
INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT
AND TRADEMARK OFFICE
Alexandria, Virginia 22313

Patent No. 6466862

Paper No. _____

NOTICE OF *EX PARTE* REEXAMINATION

Notice is hereby given that a request for *ex parte* reexamination of U.S. Patent No. 6466862 was filed on 4/14/00 under 35 U.S.C. 302 and 37 CFR 1.510(a).

The reexamination proceeding has been assigned Control No. 90/ 010645.

This Notice incorporates by reference into the patent file, all papers entered into the reexamination file.

Note: This Notice should be entered into the patent file and given a paper number.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT APPLICATION EXAMINING OPERATIONS

682
1/21/10



Applicant: DeKock, et al. Group Art Unit:
Serial No: (concurrently herewith) Examiner:
Filed : April 14, 2000
Title : SYSTEM FOR PROVIDING TRAFFIC INFORMATION

INFORMATION DISCLOSURE STATEMENT
IN ACCORDANCE WITH 37 CFR §1.98

Chernoff, Vilhauer, McClung
& Stenzel LLP
1600 ODS Tower
601 S.W. Second Ave.
Portland, Oregon 97204
April 14, 2000

Box PATENT APPLICATION
Assistant Commissioner of Patents
Washington, DC 20231

Dear Sir:

Applicants submit herewith copies of patents and other art of which they are aware and which they desire to have considered by the Patent Office in accordance with 37 CFR §1.97. In accordance with 37 CFR §1.97(b)(1), this Information Disclosure Statement is being submitted within three months of filing the above-identified application.

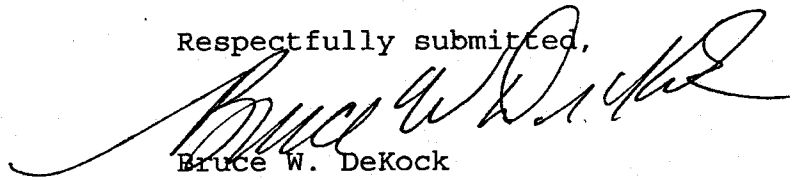
In accordance with 37 CFR §1.97(h), the filing of this Information Disclosure Statement will not be regarded as an admission that any patent or combination of patents referred to herein is, or is considered to be, material to patentability under 37 CFR §1.56(b) unless specifically designated as such.

A list of the patents and publication enclosed herewith is set forth on the attached single page of Form PTO-1449 (Modified).

References have been discussed in the Background of the Invention portion of the patent application.

The person making this statement is the attorney who signs below on the basis of the information supplied by the inventors and the information in the file.

Respectfully submitted,

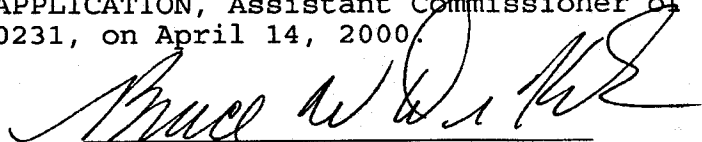


Bruce W. DeKock
Reg. No. 40,585
Attorney for Applicants
Tel: (503) 227-5631

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope addressed to: Box PATENT APPLICATION, Assistant Commissioner of Patents, Washington, DC 20231, on April 14, 2000.

Dated: April 14, 2000


Bruce W. DeKock

Just a U.S. PTO
09/550476

701
Class
ISSUE CLASS

6468862
6468862

U.S. UTILITY Patent Application

CLASS 701 O.I.P.E. PATENT DATE
SCANNED

APPLICATION NO.	CONT/PRIOR	CLASS	SUBCLASS	ART UNIT	EXAMINER
09/550476	D	701		3661	

APPLICANTS
Bruce Devoet
Kevin Russell
Richard Quan

TITLE
System for providing public information

PTO 2040
1299

ISSUING CLASSIFICATION				
ORIGINAL		CROSS REFERENCE(S)		
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)	
701	117	701	118	119
INTERNATIONAL CLASSIFICATION		340	401	405 487
701/15	5/02	342	35715	

<input type="checkbox"/> TERMINAL DISCLAIMER The term of this patent subsequent to (date) has been disclaimed. The term of this patent shall not extend beyond the term as determined by U.S. Patent, P.O. The term of months of this patent have been disclaimed.	DRAWINGS Sheets Draw. Figs. Draw. Figs. 15 16 1	CLAIMS ATTACHED Total Claims Part of Claims 30 1
	WILLIAM A. SUCHLINSKI, JR. SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600 2/19/02	NOTICE OF ALLOWANCE MADE 2/19/02
	(Signature of Examiner) (Date)	ISSUE BATCH NUMBER 12646

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The information disclosed herein may be restricted. Unauthorized use or disclosure may be prohibited by the United States Code Title 35, Section 4205, and other laws. Possession outside the U.S. Patent & Trademark Office is restricted to authorized employees and agents only.

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SEARCHED			
Class	Sub.	Date	Exmr.
701	117	1/4/00	MYM
↓	118		↓
	119		
	213		
342	357	1/4/00	
340	357-13 901+		↓
Update Search 340	928	5/22/01	MYM
Update Search 340	905 988	2/13/02	MYM

INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.
701	117	2/13/02	MYM
↓	118		
	119		
340	901		
↓	905		
	988		

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
Contacted:	Date	Exmr.
jaques regarding Search	1/4/00	MYM
Search West	1/3/00 1/4/00	MYM
Search West	8/22/01	MYM

(RIGHT OUTSIDE)

3574 U.S. PTO
09/550476



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of 1/4")
1/16")

ISSUE SLIP STAPLE AREA (for additional cross references)

	INITIALS	ID NO.	DATE
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QUALITY REVIEW			

APPLICATION NO. 09/550476 COR C

APPLICANTS
BRUCE DUFFOK
KEVIN RUSSELL
RICHARD BLEN
TITLE
System for pr

ORIGINAL

CLASS	SUBCL
7C1	11

INTERNATIONAL CLASSIFIC
G01N 5/02

TERMINAL DISCLAIMER

The term of this patent subsequent to (da) has been disclaimed.

The term of this patent shall not extend beyond the expiration of U.S. Patent (da)

The terminal (da) months of this patent have been disclaimed.

WARNING:
The information disclosed herein may be the subject of a U.S. Patent & Trademark Office proceeding.

Form PTO-436A

Form Drawings L

INDEX OF CLAIMS

Rejected N Non-elected
 Allowed I Interference
 through numeral) Canceled A Appeal
 Restricted O Objected

Claim	Date		Claim	Date	
	Final	Original		Final	Original
51			101		
52			102		
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98			148		
99			149		
100			150		

If more than 150 claims or 10 actions staple additional sheet here

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Search Results -

Term	Documents
DETECT\$3	0
DETECT.DWPI,TDBD,EPAB,JPAB,USPT.	827240
DETECTA.DWPI,TDBD,EPAB,JPAB,USPT.	9
DETECTAB.DWPI,TDBD,EPAB,JPAB,USPT.	1
DETECTABE.DWPI,TDBD,EPAB,JPAB,USPT.	6
DETECTABL.DWPI,TDBD,EPAB,JPAB,USPT.	11
DETECTABY.DWPI,TDBD,EPAB,JPAB,USPT.	1
DETECTAD.DWPI,TDBD,EPAB,JPAB,USPT.	1
DETECTAG.DWPI,TDBD,EPAB,JPAB,USPT.	1
DETECTAL.DWPI,TDBD,EPAB,JPAB,USPT.	1
(L9 AND ((DETECT\$3 OR SENS\$3 OR MONITOR\$3) NEAR7 (TRAFFIC))) .USPT,JPAB,EPAB,DWPI,TDBD.	78

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Search History

Today's Date: 1/2/2001

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
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USPT,JPAB,EPAB,DWPI,TDBD	18 and (transmi\$6)	183	<u>L9</u>
USPT,JPAB,EPAB,DWPI,TDBD	11 and (network or database)	216	<u>L8</u>
USPT,JPAB,EPAB,DWPI,TDBD	15 and (gps or global positioning system)	6	<u>L7</u>
USPT,JPAB,EPAB,DWPI,TDBD	15 and (computer\$1 or processor\$1 or database)	58	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 and receiv\$3	63	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	13 and ((detect\$3 or sens\$3 or monitor\$3) same (transmi\$5))	66	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	((traffic near5 information\$1) near7 (mobile user\$1 or user\$1 or client\$1 or user\$1 station\$1) same (network))	157	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	(traffic near5 information\$1)	9069	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	((provid\$3) near5 (traffic near5 information\$1))	461	<u>L1</u>

WEST

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Term: 117 and (network or database or server or computer
or processor) ▲
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Search History

Today's Date: 1/2/2001

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USPT,JPAB,EPAB,DWPI,TDBD	117 and network or database or server or computer or+++++	106692	<u>L18</u>
USPT,JPAB,EPAB,DWPI,TDBD	116 and transmitter	26	<u>L17</u>
USPT,JPAB,EPAB,DWPI,TDBD	115 and receiver	44	<u>L16</u>
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USPT,JPAB,EPAB,DWPI,TDBD	((traffic monitor\$3) near7 (receiver\$1 near7 transmitter\$1))	11	<u>L14</u>
USPT,JPAB,EPAB,DWPI,TDBD	((traffic monitor\$3) near7 (detector\$1 near7 transmitter\$1))	2	<u>L13</u>
USPT,JPAB,EPAB,DWPI,TDBD	((traffic monitor\$1) near5 (detector\$1 near7 transmitter\$1))	1	<u>L12</u>
USPT,JPAB,EPAB,DWPI,TDBD	17 and network	185	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	18 and driver	32	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	18 and ((computer) near7 (receiver same network))	0	<u>L9</u>
USPT,JPAB,EPAB,DWPI,TDBD	17 and ((mobile user\$3 or client\$1 or user\$1 or base station\$1 or station\$1) near9 (server or network or database\$1))	103	<u>L8</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 and (transmi\$6 or transceiv\$3)	277	<u>L7</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 and (transmitter or transceiver)	146	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 and (tranmitter or transceiver)	42	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	13 and receiv\$3	277	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	12 and ((monitor\$3 or detect\$3 or sens\$3) same (transmi\$5))	303	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	(provid\$3 or obtain\$3) near5 (traffic near5 information\$1)	938	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	(provid\$3) near5 (traffic near5 information\$1)	461	<u>L1</u>

WEST**End of Result Set** **Generate Collection**

L6: Entry 58 of 58

File: JPAB

Dec 14, 1999

PUB-NO: JP411345388A
DOCUMENT-IDENTIFIER: JP 11345388 A
TITLE: SYSTEM, EQUIPMENT AND METHOD FOR VEHICLE TRAFFIC
INFORMATION NOTIFICATION

PUBN-DATE: December 14, 1999

INVENTOR-INFORMATION:

NAME	COUNTRY
HIGASHIDA, TAKAO	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
OMRON CORP	N/A

APPL-NO: JP10151086

APPL-DATE: June 1, 1998

INT-CL (IPC): G08G 1/01; G08G 1/017; G08G 1/09

ABSTRACT:

PROBLEM TO BE SOLVED: To make the traffic states of many and unspecified vehicles graspable while protecting privacy by discriminating whether or not accepted vehicle information is vehicle information of a registered vehicle, distinguishing a registered vehicle from an unregistered vehicle, providing traffic information and notifying of the traffic information.

SOLUTION: A navigation device for automobile which is adaptable to a VICS and also transmits vehicle ID information to an optical vehicle sensor 2 is mounted on a vehicle 1 which travels on a road. The vehicle ID information which is transmitted to the sensor 2 includes the vehicle ID of a vehicle and information of the type of a car, and a traffic control center 3 specifies the traveling position of the vehicle 1 from the location of the sensor 2 by receiving the vehicle ID information via the sensor 2 and specifies the type of a car from the information of the type of a car which is included in the vehicle ID information. And, it transmits traffic information to a user's personal computer 5 or facsimile 6 through a public line network 4 in response to access from a registered user.

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Exhibit E
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L1: Entry 9 of 461

File: USPT

Nov 21, 2000

DOCUMENT-IDENTIFIER: US 6151550 A
TITLE: Traffic information providing system

ABPL:

To obtain a traffic information providing system which can display information of a forward section of an on-road radio transmission/reception device even if there is no oncoming vehicle. The on-vehicle radio transmission/reception device has a moving time calculation device for calculating moving times of traveling sections which are arbitrarily divided, a memory for storing the moving time calculated by the moving time calculation device, and a transmission device for transmitting the moving time; and the on-road radio reception device has a reception device for receiving a moving time from the moving time calculation device, a recognition unit for recognizing a traffic situation from the moving time to form traffic situation data, a data communication device for transmitting/receiving the traffic situation data between the plurality of on-road radio transmission/reception devices, and a display device for displaying the traffic situation data obtained by the data communication device.

BSPR:

The present invention relates to a traffic information providing system for providing a display of traffic information and, more particularly, to a traffic information providing system in which, if even one vehicle on which an on-vehicle radio transmission/reception device is mounted passes through an on-road radio transmission/reception device, detailed traffic information can be provided to other vehicles by the on-road radio transmission/reception device.

BSPR:

FIG. 6 is a view showing a conventional traffic information providing system described in Japanese Unexamined Patent Publication No. 6-180795. Referring to FIG. 6, on an automobile 1, various sensors such as a steering sensor, a direction sensor, and a vehicle speed sensor and a transmission/reception circuit are arranged. Steering angle data detected by the steering sensor, progress direction data detected by the direction sensor, vehicle speed data detected by the vehicle speed sensor are transmitted by the transmission/reception circuit through a transmission antenna 2. Data corresponding to these data and transmitted from another vehicle are received by the transmission/reception circuit of own vehicle and then transmitted in the same manner as described above.

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BSPR:

In the traffic information providing system with the above arrangement, a forward traffic situation can be recognized by a backward vehicle.

BSPR:

However, a conventional traffic information providing system with the above arrangement has the following problems:

BSPR:

The present invention has been made to solve the above problems, and has as its object to obtain a traffic information providing system which can display information of a forward section of an on-road radio transmission/reception device even if no oncoming vehicle, can use a narrow-band communication scheme used in an automatic charge collection apparatus, and, even if the distance between on-road radio transmission/reception devices is long, can provide detailed information of the section between the on-road radio transmission/reception devices.

BSPR:

A traffic information providing system according to the present invention includes an on-vehicle radio transmission/reception device mounted on a vehicle and a plurality of on-road radio transmission/reception devices installed on roads, wherein the on-vehicle radio transmission/reception device has: a moving time calculation device for calculating moving times of traveling sections which are arbitrarily divided; a moving time storage device for storing the moving time calculated by the moving time calculation device; and a transmission device for transmitting the moving time, and the on-road radio transmission/reception device has a reception device for receiving the moving time from the on-vehicle radio transmission/reception device; a traffic situation recognition device for comparing the moving time with a preset reference time to form traffic situation data; a data communication device for transmitting/receiving the traffic situation data between the plurality of on-road radio transmission/reception devices; and a display device for displaying the traffic situation data obtained by the data communication device.

DRPR:

FIG. 1 is a concept view showing a traffic information providing system according to the present invention;

DRPR:

FIG. 4 is a concept view showing another traffic information providing system according to this invention;

DRPR:

FIG. 5 is a concept view showing still another traffic information providing system according to this invention; and

DRPR:

FIG. 6 is a view showing a conventional traffic information providing system.

DEPR:

FIG. 1 is a concept view showing a traffic information providing system according to this invention. The traffic information providing system is constituted by an on-vehicle radio transmission/reception device 100 mounted on a vehicle and a plurality of on-road radio transmission/reception devices 200 installed on a road. The plurality of on-road radio transmission/reception devices 200 are installed on the roadside of, e.g., a road at predetermined intervals along the road.

DEPR:

In the traffic information providing system arranged as described above, even if there is no oncoming vehicle, information of a forward section can be displayed on the on-road radio transmission/reception device 200. Since a vehicle transmits/receives data to/from the on-road radio transmission/reception device 200, the positional relationship between pieces of information obtained by the vehicle becomes clear, and the reliability of traffic situation data is improved. Communication between the vehicle and the on-road radio transmission/reception device 200 can be performed by using a narrow-band communication scheme used in an automatic charge collection apparatus or the like. Furthermore, even if the distance between the on-road radio transmission/reception devices 200 is long, detailed information of the section between the on-road radio transmission/reception devices 200 can be reliably provided.

DEPR:

FIG. 4 is a concept view showing another traffic information providing system according to this invention. An on-road radio transmission/reception device 210 according to this embodiment has a traveling section information memory 21 serving as a traveling section information storage means. In the traveling section information memory 20, pieces of traveling section information divided depending on a distance to the next on-road radio transmission/reception device 210, past traffic jam situations, and the like are stored.

DEPR:

In the traffic information providing system arranged as described above, traffic information of a necessary section can be made detailed. By limiting the number of divided traveling sections, the memory 11 of the on-vehicle radio transmission/reception device 110 can be effectively used.

DEPR:

FIG. 5 is a concept view showing still another traffic information providing system according to this invention. An on-vehicle radio transmission/reception device 120 according to this embodiment has a vehicle-side display device 22 serving as a vehicle-side display means. The vehicle-side display device 22 has a switch or the like formed thereon, and is applied with a power source voltage as needed.

DEPR:

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In the traffic information providing system arranged as described above, data displayed on the display device 18 of the on-road radio transmission/reception device 220 is received by the on-vehicle radio transmission/reception device 120, and the received information is stored in the memory 11, so that the contents of the memory 11 can be displayed at any time on the vehicle-side display device 22 in the vehicle. For this reason, when the driver misses the contents on the display device 18 of the on-road radio transmission/reception device 220, the driver can check the information again at any time.

DEPR:

A traffic information providing system according to this invention is constituted by an on-vehicle radio transmission/reception device mounted on a vehicle and a plurality of on-road radio transmission/reception devices installed on a road. The on-vehicle radio transmission/reception device has a moving time calculation means for calculating moving times of traveling sections which are arbitrarily divided, a moving time storage means for storing the moving time calculated by the moving time calculation means, and transmission means for transmitting the moving time. The on-road radio transmission/reception device has a reception means for receiving said moving time from the on-vehicle radio transmission/reception device, a traffic situation recognition means for comparing the moving time with a preset reference time to form traffic situation data, a data communication means for transmitting/receiving the traffic situation data between the plurality of on-road radio transmission/reception devices, and a display means for displaying the traffic situation data obtained by the data communication means. For this reason, even if there is no oncoming vehicle, information of a forward section of the on-road radio transmission/reception device can be displayed and provided to a driver. A narrow-band communication scheme used in an automatic charge collection apparatus or the like can be used. In addition, the positional relationship between pieces of information obtained by the vehicle becomes clear, and the reliability of traffic situation data is improved.

CLPR:

1. A traffic information providing system comprising an on-vehicle radio transmission/reception device mounted on a vehicle and a plurality of on-road radio transmission/reception devices installed on roads,

CLPR:

2. A traffic information providing system according to claim 1, characterized in that said moving time calculation means has a traveling distance detection device for outputting a traveling distance and a timer device for outputting time and calculates a moving time of each traveling section by using said traveling distance detection device and said timer device.

CLPR:

3. A traffic information providing system according to claim 1, characterized in that

CLPR:

4. A traffic information providing system according to claim 1, characterized in that

CLPR:

5. A traffic information providing system according to claim 1, characterized in that

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L8: Entry 67 of 103

File: USPT

Sep 30, 1997

DOCUMENT-IDENTIFIER: US 5673039 A

TITLE: Method of monitoring vehicular traffic and of providing information to drivers and system for carrying out the method

ABPL:

An arrangement for monitoring vehicular traffic and providing information and warnings to drivers of traffic disruptions, driver error, dangerous road conditions, and severe weather. Road and traffic conditions are detected with roadside traffic sensing equipment, and the conditions are displayed over luminescent elements with signal lamps distributed at intervals along the road and combined into chains of lamps. The luminescent elements are illuminated simultaneously or in sequence for providing continuous traffic information. A processor network and a signal network are combined through a communication network to regulate the luminescent elements by processing, if necessary, under real time controlled conditions.

BSPR:

The present invention concerns first a method of monitoring vehicular traffic and of providing information and warnings in due time to drivers of traffic disruptions, driver error, dangerous road conditions, and severe weather. The invention also concerns a system for carrying out the method.

BSPR:

Also known is a system of monitoring traffic and providing information that uses radio beacons with lamps distributed at intervals along a road. The beacons can be connected to and disconnected from a control center and are activated by integrated receiving equipment. The signal-lamp receiving equipment communicates with transmitters in motor vehicles. The transmitters themselves are controlled by speedometers and crash sensors in the vehicles and themselves activate the lamps in the beacons.

BSPR:

The theory behind this traffic-monitoring and information-providing system is that a system of chains of lamps communicates by way of appropriate receiving and transmitting equipment with sensors installed in vehicles. The lamps are accordingly enabled to emit warning signals appropriate to the vehicle's operating state of the vehicle and even when individual vehicles or groups of vehicles are stopped, when traffic situations so dictate. The operating state of a vehicle in traffic can of course only be detected and exploited to activate

the beacon system when the vehicle is equipped with the appropriate sensors and with transmitting equipment activated by them. The operating states of all the other motor vehicles participating in the traffic cannot on the other hand be detected and exploited to provide information and warning signals.

BSPR:

One object of the present invention accordingly is an improved method of the genus and purpose initially described that will allow dynamic monitoring of the total traffic in a stretch of road equipped with such a monitoring and information-provision system as well as due information and warnings to drivers and hence the possibility of regulating the traffic, but that does not require that the vehicles be equipped with appropriate sensors and transmitting equipment. Another object is a traffic monitoring and information-providing system that will carry out such a method.

BSPR:

The combination of measurement network, a processor network, and signal network constitutes a method, working with a distributed-intelligence system, whereby traffic control and regulation are completely decentralized and conducted on site along the road. The luminescent elements themselves can be manually programmed directly on site by way of decentralized processors as well as remotely to load flashing programs for example. The road and traffic conditions, detected by a sensing equipment or manually entered are displayed over luminiscent elements with signal lamps distributed at intervals along the road, combined into chains of lamps, and illuminated simultaneously or in sequence, providing continuous traffic information and when necessary warning in real time. The system is especially used for dangerous road sections to improve traffic safely and to realize a smooth traffic flow.

BSPR:

Another basic difference between the invention and the known system is the that the U.S. patent describes only a strict intersection control whereby the traffic is subject to surveillance and control only in relation to the next intersection. Real-time surveillance by forwarding data associated with a single vehicle from one section to another by way of meshed networks as in the present invention is impossible in the known system. This will also be evident in that in the known system, the control section extends statically from one intersection to the next. Variable control-section length of the type unavoidable for dynamic traffic control is possible only with the method in accordance with the present invention. Surveillance for accidents and dangerous driving are additionally possibilities of the invention. In the method in accordance with the present invention this is possible in that the entry of every vehicle as well as of what within a section road under surveillance, whereby the time that usually elapses until the next detection point is reached can be individually evaluated or predicted for each vehicle. If an expected vehicle is absent throughout a specific interval or if other thresholds are exceeded, a graduated alarm is triggered and transmitted to the

superordinate surveillance device. Oncoming vehicles, for example, can then be alerted about a jam as they encounter flashing lights. Analysis of the reason for the warning will then occur interactively and in accordance with centralized and decentralized algorithms. The luminescent elements can then be controlled in accordance with the revealed cause.

BSPR:

The second object is a system of monitoring traffic and providing information that can be used to carry out the method. This object is attained in the system recited in the preamble to claim 16. A detection point is provided with traffic-and/or-load sensing equipment that operate essentially across the lane of a road. At least two luminescent elements are associated with the detection point. The luminescent elements are distributed at intervals along the road, statically or dynamically interconnected, and provided with optical signal generators in the form of signal lamps and with at least one processing-and-control set in the form of a road-event processor. The processing-and-control sets process detected traffic situations and/or road conditions and illuminate and activate the signal lamps.

BSPR:

The system in accordance with the invention differs from that at the state of the art. The luminescent elements installed in the form of chains of lamps along at least one side of the road are not controlled in accordance with the invention by radio from sensors and transmitters inside the vehicles or by a control center. They are controlled by way of roadside sensors by a road-event processor that processes the traffic situations and/or road conditions detected by the sensors. The processor then emits signals in accordance with the traffic situation detected. The flashes can be individual flashes or groups of flashes ahead of the traveling vehicles. They can also be in the form of synchronized waves of light that travel forward or backward at various frequencies, accelerating and decelerating the flow of traffic.

BSPR:

There is accordingly no direct communication in accordance with the invention between the individual vehicles in traffic and the luminescent elements. The vehicles are monitored by roadside sensors. It is accordingly not just motor vehicles equipped with special sensors and transmitters that are monitored, but basically all the vehicles.

BSPR:

The road-event processor in another important embodiment of the invention has an interface for telecommunications. The telecommunications can be through a telephone connection and modem or through modem operation by directional, satellite, or similar radio transmission.

BSPR:

The luminescent elements in the traffic-monitoring and information-providing system in accordance with the invention can be in the form of modules for later installation in existing

roadway guideposts. Such a modular luminescent element might be inserted in an adapter in the guidepost. Otherwise, the luminescent elements themselves can be fully contained guideposts.

DRPR:

Three embodiments of the traffic-monitoring and information-providing system in accordance with the invention, one embodiment of the road-event processor, and one of the luminescent element in the form of a lamppost will now be specified with reference to the drawing, wherein

DRPR:

FIG. 1 illustrates a section of a stretch of meandering road equipped with a traffic-monitoring and information-providing system,

DRPR:

FIG. 12 is a block-diagram of meshed networks for monitoring traffic and of providing information and warnings to drivers of the actual traffic-conditions, and

DEPR:

The traffic-monitoring and information-providing system invention comprises three subsidiary systems. First, a system of roadside sensors detects traffic situations and/or road conditions. Second, a system of processors processes the detected traffic-situation and/or road-condition data. Third, a warning system includes signal lamps that can be activated by the processors in accordance with the results of the processing.

DEPR:

In the embodiment of the invention illustrated in FIG. 12, six road-event processors 230 and 231 are combined into a network 232 immediately adjacent to the road. Each processor 230 is a master and each processor 231 a slave. Master processors 231 are connected to a decentralized communications computer 233, through which processors 230 and 231 can be directly programmed and parametered on site. All detected results are transmitted to communications computer 233 at 30-second intervals by way of an RS-232 interface 234 at a rate of either 9700 or 19 200 baud. The communications computer is programmed in C language. It communicates through a modem 235 and the public telephone network 236 with a central control station 237, which has a modem 240.

CLPR:

1. A traffic-monitoring and information-providing system for monitoring and analyzing vehicular traffic and providing information and warnings to drivers on traffic disruptions, driver errors, dangerous road conditions, and severe weather conditions, comprising: sensing means enclosing detection points with induction loops; drive over scales and dynamic wheel-load-sensors; a specific number of road-event-processors connected to said dynamic wheel-load sensors; an intelligent bussystem interconnected to said road-event processors; a varying processor network of distributed intelligence interconnected to said road-event processors through said intelligent bus system;

signal processors connected to said varying processor network; a signal network for generating traffic signals; a lighting bus for connecting said signal processors to said signal network; a plurality of interconnected luminescent elements receiving traffic signals from said signal network; said luminescent elements having signal lamps as optical signal generators.

CLPR:

27. A method for monitoring vehicular traffic and providing information and early warnings to drivers on traffic disruptions, driver error, dangerous road conditions, and severe weather conditions, comprising the steps of: detecting road and traffic conditions with a net of sensing equipment enclosing detection points with induction loops, drive over scales and dynamic wheel load sensors; emitting traffic information signals by a measurement network to a given number of road event processors interconnected with an intelligent bussystem to a varying processor network with distributed intelligence means interconnected with signal processors combined to a signal network by a lighting bus; and displaying said traffic conditions over interconnected luminescent elements with signal lamps distributed at intervals along the road and combined into chains of lamps illuminated for providing continuously said traffic information signals emitted from the measurement network at a communication network to said interconnected luminescent elements.

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L8: Entry 101 of 103

File: JPAB

Aug 15, 1997

PUB-NO: JP409212795A
DOCUMENT-IDENTIFIER: JP 09212795 A
TITLE: SYSTEM AND DEVICE FOR PROVIDING TRAFFIC STATE INFORMATION USING RADIO WAVE CALLING NETWORK

PUBN-DATE: August 15, 1997

INVENTOR-INFORMATION:

NAME

CHUE, GYUSOKU

CHUE, MISON

NAMU, GISON

ASSIGNEE-INFORMATION:

NAME

KOREA MOBIL TELECOMMUN CORP

COUNTRY

N/A

APPL-NO: JP08259393

APPL-DATE: September 30, 1996

INT-CL (IPC): G08G 1/09; G01C 21/00; G08G 1/0969; G09B 29/10;
H04H 1/00

ABSTRACT:

PROBLEM TO BE SOLVED: To reduce the traffic jam with inexpensive expenditure by receiving a traffic information block propagated from a radio wave calling network, expressing it in a digital road network stored in a database and outputting it to user.

SOLUTION: A traffic information collecting equipment 11 collects traffic state occurrence information by a traffic sensor, etc., and outputs it to a traffic information host computer 12. The traffic information host computer 12 executes conversion into a traffic information data format and outputs it to a traffic information server 13 with an exclusive line or a communication network. The traffic information server 13 converts it into the traffic information block and outputs it to the radio wave calling network q14 through TAP or a TNNP protocol. The radio wave calling network 14, that is, a radio wave transmitter converts it into a POCSAG/FSK or FLEX/FSK signal form so as to propagate, that is, broadcast it in the air. A traffic information terminal equipment 15 executes expression in the digital road network which is separately stored in the database and permits the user to know the occurrence of the traffic

and permits the user to know the occurrence of the traffic conditions in an area required through a monitor.

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USPT,JPAB,EPAB,DWPI,TDBD	18 and driver	32	<u>L10</u>
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USPT,JPAB,EPAB,DWPI,TDBD	17 and ((mobile user\$3 or client\$1 or user\$1 or base station\$1 or station\$1) near9 (server or network or database\$1))	103	<u>L8</u>
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09550476	Not Issued	30	04/14/2000	SYSTEM FOR PROVIDING TRAFFIC INFORMATION	DEKOCK , BRUCE W.
60130399	Not Issued	159	04/19/1999	SYSTEM FOR PROVIDING TRAFFIC INFORMATION	DEKOCK , BRUCE W.
60166868	Not Issued	159	11/22/1999	SYSTEM FOR PROVIDING TRAFFIC INFORMATION	DEKOCK , BRUCE W.
60189913	Not Issued	2	03/16/2000	SYSTEM FOR PROVIDING TRAFFIC INFORMATION	DEKOCK , BRUCE W.

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USPT	11 and (ccd or camera)	0	<u>L2</u>
USPT	5959577.pn.	1	<u>L1</u>

Exhibit E
Page 180 of 311

1/3/01 10:51 AM
180

WEST

End of Result Set

Generate Collection

L15: Entry 5 of 5

File: JPAB

Nov 9, 1999

PUB-NO: JP411313215A

DOCUMENT-IDENTIFIER: JP 11313215 A

TITLE: IMAGE DATA TRANSMITTER AND IMAGE DATA DISTRIBUTION SYSTEM

PUBN-DATE: November 9, 1999

INVENTOR-INFORMATION:

NAME

COUNTRY

SUZUKI, SEIICHI

N/A

SATO, ATSUSHI

N/A

YAMAKAWA, HIROYUKI

N/A

ASSIGNEE-INFORMATION:

NAME

COUNTRY

AQUEOUS RESERCH:KK

N/A

APPL-NO: JP10131421

APPL-DATE: April 24, 1998

INT-CL (IPC): H04N 1/48; G08G 1/01; G08G 1/04

ABSTRACT:

PROBLEM TO BE SOLVED: To provide the image data distribution system that displays an image with excellent color reproducibility.

SOLUTION: The image distribution system is provided with a traffic information display device, a base station, a video transmitter 25 to which image request data are sent from the traffic information display device via the base station, and a CCD camera 23a that picks up an image based on a control signal from the video transmitter 25. Upon the receipt of the image request data, a switch 252 of the image transmitter 25 is used to apply a power supply 231 of the CCD camera 23a again. A white balance adjustment section 233 of the CCD camera 23a sets white balance again at application of power. Thus, an object is photographed while the white balance is adjusted in matching with a color temperature around the object at all times. Image data obtained by photographing are compressed by the video transmitter 25 and the compressed data are sent to the traffic information display device via the base station and displayed on the display device.

Exhibit E

Page 181 of 311

1/3/01 11:00 AM

181

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Generate Collection

Search Results - Record(s) 11 through 14 of 14 returned.

11. Document ID: US 5412573 A

L20: Entry 11 of 14

File: USPT

May 2, 1995

US-PAT-NO: 5412573

DOCUMENT-IDENTIFIER: US 5412573 A

TITLE: Multi-mode route guidance system and method therefor

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

12. Document ID: JP 09252260 A

L20: Entry 12 of 14

File: JPAB

Sep 22, 1997

PUB-NO: JP409252260A

DOCUMENT-IDENTIFIER: JP 09252260 A

TITLE: TRAFFIC INFORMATION DISPLAY SYSTEM

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Clip Img	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	----------	-------

13. Document ID: JP 11312295 A

L20: Entry 13 of 14

File: DWPI

Nov 9, 1999

DERWENT-ACC-NO: 2000-049219

DERWENT-WEEK: 200006

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TITLE: Traffic information data management procedure for digital map - involves connecting display unit to server such that it does not transmit demand signal to server when updation of data of display unit is performed

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Clip Img	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	----------	-------

14. Document ID: JP 09044791 A

L20: Entry 14 of 14

File: DWPI

Feb 14, 1997

Exhibit E
Page 183 of 311

DERWENT-ACC-NO: 1997-184718
 DERWENT-WEEK: 199717
 COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Vehicle navigation apparatus - has decision circuit determining if particular route is passable based on newest traffic information and road map database and showing reason for impassability of route through display device

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Clip Img	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	-----	-----------	----------	-------

Generate Collection

Term	Documents
TRAFFIC\$1	0
TRAFFIC.DWPI,TDBD,EPAB,JPAB,USPT.	85604
TRAFFICA.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICE.DWPI,TDBD,EPAB,JPAB,USPT.	200
TRAFFICH.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICI.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICK.DWPI,TDBD,EPAB,JPAB,USPT.	4
TRAFFICM.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICO.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICS.DWPI,TDBD,EPAB,JPAB,USPT.	432
(L19 AND ((TRAFFIC\$1) NEAR7 (SERVER\$1 OR DATABASE\$1))).USPT,JPAB,EPAB,DWPI,TDBD.	14

[There are more results than shown above. Click here to view the entire set.](#)

Display

10

Documents, starting with Document:

14

Display Format:

TI

Change Format

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,JPAB,EPAB,DWPI,TDBD	l23 and (camera\$1 or ccd\$1)	0	<u>L26</u>
USPT,JPAB,EPAB,DWPI,TDBD	l23 and camera\$1 or ccd\$1	76048	<u>L25</u>
USPT,JPAB,EPAB,DWPI,TDBD	l23 and (speed\$3 or velocity)	1	<u>L24</u>
USPT,JPAB,EPAB,DWPI,TDBD	5987374.pn.	2	<u>L23</u>
USPT,JPAB,EPAB,DWPI,TDBD	l21 and ((map\$1) near7 (server\$1 or database\$1))	12	<u>L22</u>
USPT,JPAB,EPAB,DWPI,TDBD	l13 and ((traffic\$1) near7 (server\$1 or database\$1))	48	<u>L21</u>
USPT,JPAB,EPAB,DWPI,TDBD	l19 and ((traffic\$1) near7 (server\$1 or database\$1))	14	<u>L20</u>
USPT,JPAB,EPAB,DWPI,TDBD	l10 and ((map\$1) near7 (server\$1 or database\$1))	43	<u>L19</u>
USPT,JPAB,EPAB,DWPI,TDBD	l16 and ((map\$1) near7 (server\$1 or database\$1))	2	<u>L18</u>
USPT,JPAB,EPAB,DWPI,TDBD	l16 and ((map\$1) near4 (server\$1 or database\$1))	1	<u>L17</u>
USPT,JPAB,EPAB,DWPI,TDBD	l13 and (camera or ccd\$1)	64	<u>L16</u>
USPT,JPAB,EPAB,DWPI,TDBD	l14 and (camera or ccd\$1)	5	<u>L15</u>
USPT,JPAB,EPAB,DWPI,TDBD	l13 and (request\$3 near4 traffic near3 information\$1)	31	<u>L14</u>
USPT,JPAB,EPAB,DWPI,TDBD	l11 and display\$3	534	<u>L13</u>
USPT	l11 and display\$3	361	<u>L12</u>
USPT,JPAB,EPAB,DWPI,TDBD	l10 and transmi\$5	534	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	l9 and ((display\$3) near7 (traffic information\$1 or text\$1 or image\$ or message\$1))	1047	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	traffic information\$1	4124	<u>L9</u>
USPT	l1 and display\$3	1	<u>L8</u>
USPT	l6 and (traffic\$1 condition\$1)	1	<u>L7</u>
USPT	l1 and (mobil\$1 unit\$1)	1	<u>L6</u>
USPT	l4 and request\$3	1	<u>L5</u>
USPT	l1 and monitor\$3	1	<u>L4</u>
USPT	l1 and (ccd or camera\$1)	0	<u>L3</u>
USPT	l1 and (ccd or camera)	0	<u>L2</u>
USPT	5959577.pn.	1	<u>L1</u>

WEST

Search Results -

Term	Documents
TRAFFIC\$1	0
TRAFFIC.DWPI,TDBD,EPAB,JPAB,USPT.	85604
TRAFFICA.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICE.DWPI,TDBD,EPAB,JPAB,USPT.	200
TRAFFICH.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICI.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICK.DWPI,TDBD,EPAB,JPAB,USPT.	4
TRAFFICM.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICO.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICS.DWPI,TDBD,EPAB,JPAB,USPT.	432
(L29 AND TRAFFIC\$1).USPT,JPAB,EPAB,DWPI,TDBD.	1

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Refine Search:

Search History

Today's Date: 1/3/2001

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI,TDBD	L29 AND TRAFFIC\$1	1	<u>L30</u>
USPT,JPAB,EPAB,DWPI,TDBD	l28 and locat\$3	1	<u>L29</u>
USPT,JPAB,EPAB,DWPI,TDBD	l27 and database\$1	1	<u>L28</u>

USPT,JPAB,EPAB,DWPI,TDBD	11 and (map\$4 or traffic\$1)	1	<u>L27</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and (camera\$1 or ccd\$1)	0	<u>L26</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and camera\$1 or ccd\$1	76048	<u>L25</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and (speed\$3 or velocity)	1	<u>L24</u>
USPT,JPAB,EPAB,DWPI,TDBD	5987374.pn.	2	<u>L23</u>
USPT,JPAB,EPAB,DWPI,TDBD	121 and ((map\$1) near7 (server\$1 or database\$1))	12	<u>L22</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and ((traffic\$1) near7 (server\$1 or database\$1))	48	<u>L21</u>
USPT,JPAB,EPAB,DWPI,TDBD	119 and ((traffic\$1) near7 (server\$1 or database\$1))	14	<u>L20</u>
USPT,JPAB,EPAB,DWPI,TDBD	110 and ((map\$1) near7 (server\$1 or database\$1))	43	<u>L19</u>
USPT,JPAB,EPAB,DWPI,TDBD	116 and ((map\$1) near7 (server\$1 or database\$1))	2	<u>L18</u>
USPT,JPAB,EPAB,DWPI,TDBD	116 and ((map\$1) near4 (server\$1 or database\$1))	1	<u>L17</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and (camera or ccd\$1)	64	<u>L16</u>
USPT,JPAB,EPAB,DWPI,TDBD	114 and (camera or ccd\$1)	5	<u>L15</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and (request\$3 near4 traffic near3 information\$1)	31	<u>L14</u>
USPT,JPAB,EPAB,DWPI,TDBD	111 and display\$3	534	<u>L13</u>
USPT	111 and display\$3	361	<u>L12</u>
USPT,JPAB,EPAB,DWPI,TDBD	110 and transmi\$5	534	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	19 and ((display\$3) near7 (traffic information\$1 or text\$1 or image\$ or message\$1))	1047	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	traffic information\$1	4124	<u>L9</u>
USPT	11 and display\$3	1	<u>L8</u>
USPT	16 and (traffic\$1 condition\$1)	1	<u>L7</u>
USPT	11 and (mobil\$1 unit\$1)	1	<u>L6</u>
USPT	14 and request\$3	1	<u>L5</u>
USPT	11 and monitor\$3	1	<u>L4</u>
USPT	11 and (ccd or camera\$1)	0	<u>L3</u>
USPT	11 and (ccd or camera)	0	<u>L2</u>
USPT	5959577.pn.	1	<u>L1</u>

WEST

Search Results -

Term	Documents
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TRAFFICH.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICI.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICK.DWPI,TDBD,EPAB,JPAB,USPT.	4
TRAFFICM.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICO.DWPI,TDBD,EPAB,JPAB,USPT.	1
TRAFFICS.DWPI,TDBD,EPAB,JPAB,USPT.	432
(L29 AND TRAFFIC\$1).USPT,JPAB,EPAB,DWPI,TDBD.	1

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Refine Search:

Search History

Today's Date: 1/3/2001

DB Name	Query	Hit Count	Set Name
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USPT,JPAB,EPAB,DWPI,TDBD	l28 and locat\$3	1	<u>L29</u>
USPT,JPAB,EPAB,DWPI,TDBD	l27 and database\$1	1	<u>L28</u>

USPT,JPAB,EPAB,DWPI,TDBD	11 and (map\$4 or traffic\$1)	1	<u>L27</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and (camera\$1 or ccd\$1)	0	<u>L26</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and camera\$1 or ccd\$1	76048	<u>L25</u>
USPT,JPAB,EPAB,DWPI,TDBD	123 and (speed\$3 or velocity)	1	<u>L24</u>
USPT,JPAB,EPAB,DWPI,TDBD	5987374.pn.	2	<u>L23</u>
USPT,JPAB,EPAB,DWPI,TDBD	121 and ((map\$1) near7 (server\$1 or database\$1))	12	<u>L22</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and ((traffic\$1) near7 (server\$1 or database\$1))	48	<u>L21</u>
USPT,JPAB,EPAB,DWPI,TDBD	119 and ((traffic\$1) near7 (server\$1 or database\$1))	14	<u>L20</u>
USPT,JPAB,EPAB,DWPI,TDBD	110 and ((map\$1) near7 (server\$1 or database\$1))	43	<u>L19</u>
USPT,JPAB,EPAB,DWPI,TDBD	116 and ((map\$1) near7 (server\$1 or database\$1))	2	<u>L18</u>
USPT,JPAB,EPAB,DWPI,TDBD	116 and ((map\$1) near4 (server\$1 or database\$1))	1	<u>L17</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and (camera or ccd\$1)	64	<u>L16</u>
USPT,JPAB,EPAB,DWPI,TDBD	114 and (camera or ccd\$1)	5	<u>L15</u>
USPT,JPAB,EPAB,DWPI,TDBD	113 and (request\$3 near4 traffic near3 information\$1)	31	<u>L14</u>
USPT,JPAB,EPAB,DWPI,TDBD	111 and display\$3	534	<u>L13</u>
USPT	111 and display\$3	361	<u>L12</u>
USPT,JPAB,EPAB,DWPI,TDBD	110 and transmi\$5	534	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	19 and ((display\$3) near7 (traffic information\$1 or text\$1 or image\$ or message\$1))	1047	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	traffic information\$1	4124	<u>L9</u>
USPT	11 and display\$3	1	<u>L8</u>
USPT	16 and (traffic\$1 condition\$1)	1	<u>L7</u>
USPT	11 and (mobil\$1 unit\$1)	1	<u>L6</u>
USPT	14 and request\$3	1	<u>L5</u>
USPT	11 and monitor\$3	1	<u>L4</u>
USPT	11 and (ccd or camera\$1)	0	<u>L3</u>
USPT	11 and (ccd or camera)	0	<u>L2</u>
USPT	5959577.pn.	1	<u>L1</u>

WEST Generate Collection

L20: Entry 12 of 14

File: JPAB

Sep 22, 1997

PUB-NO: JP409252260A

DOCUMENT-IDENTIFIER: JP 09252260 A

TITLE: TRAFFIC INFORMATION DISPLAY SYSTEM

PUBN-DATE: September 22, 1997

INVENTOR-INFORMATION:

NAME

YAMADA, TETSUSHI

ASSIGNEE-INFORMATION:

NAME

JAPAN RADIO CO LTD

COUNTRY

N/A

APPL-NO: JP08060866

APPL-DATE: March 18, 1996

INT-CL (IPC): H04B 1/16

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a traffic information display system in which traffic information image data superimposed on map image data are simply generated by reducing the data amount of a memory with respect to roads.

SOLUTION: The system is provided with a road linked latitude/longitude database 2 in which road linked data including longitude/latitude information corresponding to a linkage number set by the vehicle information and communication system(VICS) corresponding to each object road are recorded, and superimposition data generating section 4 retrieves latitude/longitude information of an object road based on a linkage number of traffic information data from the road linked latitude/longitude database 2 and generates congestion information and restriction information of received traffic information data located to the retrieved latitude/longitude information as traffic information image data. An image data generating means 5 superimposes the latitude/longitude of a map display database 1 and the latitude/longitude of the traffic information image data in cross reference and an image display section 6 displays a synthesized image.

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Exhibit E
Page 190 of 311

Employee Locator

query by name

Name		WILSON JACQUELINE (JACQUEL) B					
Employee No		74405					
Organization		GROUP ART UNIT 2612					
Email		jacquel.wilson@uspto.gov					
Primary	Bldg	Floor	Suite	Corr.	Room	Zone	Planned Move
*	PK2	6		B	42		
CONTACT NUMBER							
Primary	Type		Number			Ext	Planned Move
*	Phone		(703)308-5080				
	Fax		(703)308-5399				
	Receptionist		(703)305-3900				



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/550,476	04/14/00	DEKOCK	B BWD-7118.004

BRUCE W DEKOCK
1600 ODS TOWER
801 S W SECOND AVENUE
PORTLAND OR 97204

PM82/0122

EXAMINER

MARC COLEMAN, M

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 01/22/01

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

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/550,476	Applicant(s) DEKOCK ET AL	
	Examiner Marthe Y. Marc-Coleman	Art Unit 3661	

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

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 April 2000.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-38 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 20) <input type="checkbox"/> Other. |

DETAILED ACTION

1. Claims 1-38 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 7, 8, 11-13, 16, 19, 24-34, 37 and 38 are rejected under 35 U.S.C. 102(2) as being anticipated by Fan et al. (U.S. Patent No. 5,959,577).

In regard to claim 1, Fan et al. disclose :

- in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. (see col. 1 line 64-col. 2 line 4); which corresponds to part (a) of claim 1;
- a GPS receiver of the mobile unit receives a positioning signal which contains code sequences from GPS satellite constellation 8 and converts the code (see col. 3 lines 16-20); which correspond to part (b) of claim 1.

Art Unit: 3661

- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); which correspond to part (c) of claim 1;
- a mobile unit 3 connected to a global positioning system receiver 8 (see Fig. 1), a mobile unit having a display (see Fig. 12), communicating device (see Fig. 1); which corresponds to step (d) of claim 1.
- an authorized monitor unit may request for a specific area map by sending a request through the data network. Upon receiving a request, the data processing unit sends the area map to the monitor unit. Data processing station may also perform a database search for travel-related information, such as directions to a gasoline station (see abstract); Fan et al. also disclose in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. The data processing station organizes the measured position and generates an area map which indicates by a position marker the position of each mobile unit. This area map is made available to one or more monitor units connected to the data network. A mobile unit may also send a request for a database search through the data network to the data

Art Unit: 3661

processing station to obtain an area map or travel-related information (see col. 1 line 64-col. 2 line 24); Which corresponds to part (e) of claim 1.

In regard to claim 16, Fan et al. disclose that:

- one or more ground stations and many mobile units installed on the vehicles. In such a system, each mobile unit is equipped with a GPS receiver and a wireless transmitter. Using the GPS receiver, a mobile unit determines the position of the vehicle and then transmits the position directly to a ground station. The ground station receives the positions of all vehicles, and displays these positions on a digital map on a display device. The ground station of a conventional vehicle locating system normally also includes a map database search system, a media reader (e.g., a CD-ROM drive) and media (e.g., CD-ROMs) that store digital maps and travel-related information. Using the stored digital maps and positioning information received from the GPS satellites, the operator of the ground station can determine a present position for the vehicle (see col. 1 lines 26-40). Fan et al. also disclose identification code of said mobile user station and said transmitter transmitting said signal (see col. 4 lines 55-65); which corresponds to part (a) of claim 16.
- a GPS receiver of the mobile unit receives a positioning signal which contains code sequences from GPS satellite constellation 8 and converts the code (see col. 3 lines 16-20); which correspond to part (b) of claim 16.

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- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); an authorized monitor unit may request for a specific area map by sending a request through the data network. Upon receiving a request, the data processing unit sends the area map to the monitor unit. Data processing station may also perform a database search for travel-related information, such as directions to a gasoline station (see abstract); Fan et al. also disclose in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. The data processing station organizes the measured position and generates an area map which indicates by a position marker the position of each mobile unit. This area map is made available to one or more monitor units connected to the data network. A mobile unit may also send a request for a database search through the data network to the data processing station to obtain an area map or travel-related information (see col. 1 line 64-col. 2 line 24); Which corresponds to part (6) of claim 16.

In regard to claims 25, 26, and 34, Fan et al. disclose:

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- a plurality of mobile user stations, each mobile user station being associated with a display, a display, a global positioning system receiver and a communicating device to allow each of said mobile user stations to send and receive signals (see col. 1 lines 24-40);
- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); said computer being capable of sensing and receiving signals to and from said mobile user stations (see Fig. 1); which corresponds to part (b) of claim 25;
- said computer system including a map database and a traffic information database, said traffic information database containing data representative of traffic at a plurality of locations (see col. 4 lines 41-54); which corresponds to part (c) of claim 25;
- at least one of said mobile user stations providing a request to said computer system for information together with a respective geographic location of said one of said mobile user stations, and in response thereto, said computer system providing to said one of said mobile user stations information representative of selected portions of said map database and selected portions of said traffic information database based on said respective geographic location of said one of said mobile user stations (see col. 1 line 64-col. 2 line 24);

Fan et al. also disclose that said map information is displayed together with traffic information (see Figs. 12 and 13).

In regard to claims 7 and 8, Fan et al. disclose that at least one of said transmitters transmits directly to said receiver; at least one of said transmitters transmits to another traffic monitor (see Fig. 1 and col. 1 line 64-col. 2 line 24).

In regard to claims 11 and 30-32, Fan et al. disclose that the mobile unit provide latitude and longitude information to said computer system (see col. 3 lines 11-16 and col. 4 lines 55-65).

In regard to claim 12, Fan et al. disclose that said computer system selects said traffic information to provide to said mobile user station based on a signal received from said global positioning system receiver (see col. col. 1 line 64-col. 2 line 24).

In regard to claims 13, 19, 24, 27-29, 37 and 38, Fan et al. disclose that said computer system maintains a traffic information database containing data representative of traffic at a plurality of locations and updates said traffic information database in response to signals received from said mobile user station; they also disclose that the computer screens data providing by said mobile user stations to determine whether said data corresponds to actual traffic conditions (see col. 4 lines 41-65).

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In regard to claim 33, Fan et al. disclose that the internet can be used as data network 27 (Fig. 1), the necessary hardware and software for implementing a monitor unit are readily available. Most computers that have the ability to access the Internet, together with a standard web browser, can be used to access data processing station 18, to perform the functions of the monitor units. Since a monitor unit can receive a map from data processing station 18, such as the map displayed on LCD 212 in Fig. 13, which can be displayed using conventional graphics software, the monitor is not required to be equipped with any special map software or a map database. Because the cost of communication on Internet is inexpensive, a vehicle monitoring system can be deployed in a world-wide basis at minimum cost. Which means that information is displayed as an information banner on said display.

Claim Rejections - 35 USC § 103

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

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-5, 9, 10, 14, 15, 17, 18, 20-23, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al. (U.S. Patent No. 5,959,577) in view of Lappenbusch et al. (U.S. Patent No. 5,982,298).

In regard to claims 2-4, 14, 17, 20-23, 35 and 36, although Fan et al. disclose a display (see Figs. 12 and 13), they do not specifically disclose that said traffic information transmitted by said computer system is displayed graphically on said display nor do they disclose that said traffic information is displayed together with a video image and a text message.

Lappenbusch et al. disclose that said traffic information transmitted by said computer system is displayed graphically on said display; they also disclose that said traffic information is displayed together with a video image and a text message (see Figs. 4-8; col. 1 lines 28-33; and col. 9 lines 37-50).

At the time of the invention it would have been obvious to one skilled in the art to utilize Lappenbusch et al.'s graphical display with Fan et al.'s travel information system because it would provide a vehicle monitoring system that can be deployed on a world-wide basis at minimum cost since the cost of communication in the internet is inexpensive (see Lappenbusch et al. col. 11 lines 13-33).

In regard to claims 5 and 18, Fan et al. disclose that in addition to computing the corrected measured position, data processing station 18 searches a database 32 and associated area map storage 63 to process the operator's query received in the outbound data package. Database 32 maintains such travel-related information as maps, traffic situation in a particular area, positions of service stations and destinations of interest. Storage for

database 32 can be implemented using any mass storage media, such as hard disks, RAMs, ROMs, CD-ROMs, and magnetic tapes. For example, infrequently updated information (e.g., maps or destinations of interest) can be stored on CD-ROMs, while frequently updated information (e.g., current traffic conditions) can be stored on RAM. Database 32 is accessed by data processing unit 38 (see col. 4 lines 41-54). Fan et al. also disclose that said map information is displayed together with traffic information (see Figs. 12 and 13).

In regard to claims 9 and 10, Lappenbusch et al. disclose that at least one of said traffic monitors includes a video camera; at least said detector is a video camera (see Fig. 1).

At the time of the invention it would have been obvious to one skilled in the art to utilize Lappenbusch et al.'s camera with Fan et al.'s travel information system so that continuous images and live feeds conditions can be provided (see Lappenbusch et al. col.1 lines 15-18).

In regard to claims 15 and 21, Fan et al. disclose that said mobile user station has an input mechanism to select a mode in which traffic information graphically on said display (see Figs. 12 and 13).

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6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al. (U.S. Patent No. 5,959,577) in view Akutsu et al. (U.S. Patent No. 5,987,374).

In regard to claim 6, although Fan et al. disclose GPS 8 to monitor vehicle movement, they do not specifically disclose that the GPS detect vehicular traffic speed.

Akutsu et al. disclose a vehicle traveling guidance system comprising:

a plurality of data providing devices installed on a road, wherein each of said data providing devices includes a detector for detecting speed and pass time of a vehicle passing over the vicinity thereof (see col. 8 lines 30-35).

At the time of the invention, it would have been obvious to one skilled in the art to utilize Akutsu et al.'s detector with Fan et al.'s travel information system so that congestion prediction with high accuracy can be achieved by considering both speed and the pass time of a vehicle (see Akutsu et al. col. 7 lines 25-29).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marthe Y. Marc-Coleman whose telephone number is (703) 305-4970. The examiner can normally be reached on Monday - Friday (5:30AM - 3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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305-7687 for regular communications and (703) 308-8623 for After Final communications.

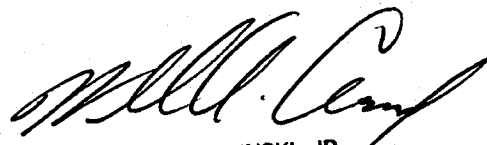
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1111.

Patent Examiner

MYM

Marthe Marc-Coleman

January 18, 2001



WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Notice of References Cited

Application/Control No.

09/550,476

Examiner

Marthe Y. Marc-Coleman

Applicant(s)/Patent Under Reexamination

DEKOCK ET AL.

Art Unit

3661

Page 1 of 1

U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	DOCUMENT SOURCE **	
							APS	OTHER
<input type="checkbox"/>	A	6107940	Aug. 2000	Grimm	340	905	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	B	6151550	Nov. 2000	Nakatani	701	117	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	C	6150961	Nov. 2000	Alewine et al.	340	995	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	D						<input type="checkbox"/>	<input type="checkbox"/>
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FOREIGN PATENT DOCUMENTS

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								APS	OTHER
<input type="checkbox"/>	N	6107940				-	-	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	O							<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	T							<input type="checkbox"/>	<input type="checkbox"/>

NON-PATENT DOCUMENTS

*		DOCUMENT (Including Author, Title Date, Source, and Pertinent Pages)	DOCUMENT SOURCE **	
			APS	OTHER
<input type="checkbox"/>	U		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	V		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	W		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>

*A copy of this reference is not being furnished with this Office action. (See Manual of Patent Examining Procedure, Section 707.05(a).)

**APS encompasses any electronic search i.e. text, image, and Commercial Databases.

U.S. Patent and Trademark Office

PTO-892 (Rev. 03-98)

FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKET NO.
7116.004

SERIAL NO.

09/550,476

APPLICANT
DeKock, et al.

FILING DATE
April 14, 2000

GROUP

3661

REFERENCE DESIGNATION
U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
MYM	AA	5,594,432	1/14/97	Oliva et al.	340	905	
MYM	AB	5,982,298	11/9/99	Lappenbusch, et al.	340	905	
MYM	AC	5,539,645	7/23/96	Mandhyan, et al.	701	119	
MYM	AD	5,959,577	9/28/99	Fan, et al.	342	357.13	
MYM	AE	5,845,227	12/1/98	Peterson	701	209	
MYM	AF	5,812,069	9/22/98	Albrecht, et al.	340	905	
MYM	AG	5,987,377	11/16/99	Westerlage, et al.	701	204	
MYM	AH	5,987,374	11/16/99	Akutsu, et al.	701	117	
MYM	AI	5,673,039	9/30/97	Pietzsch, et al.	340	905	
MYM	AJ	5,774,827	6/30/98	Smith, Jr., et al.	701	209	
MYM	AK	5,497,148	3/5/96	Oliva	340	905	
MYM	AL	5,889,477	3/30/99	Fastenrath	340	905	
MYM	AM	5,926,113	7/20/99	Jones, et al.	340	906	
MYM	AN	5,402,117	3/28/95	Zijderhand	340	905	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AO							
AP							

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ							
AR							
AS							

EXAMINER

Marthe J. Marc-Coleman

DATE CONSIDERED

1/8/00

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

09/550476

NOTICE OF DRAFTPERSON'S PATENT DRAWING REVIEW

The drawing fig(s) (insert date) 4/14/01 are:

- A. not objected to by the Draftperson under 37 CFR 1.84 or 1.152.
B. [checked] objected to by the Draftperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings where necessary.

Grid of 17 numbered sections for drawing review, including categories like DRAWINGS, PHOTOGRAPHS, TYPE OF PAPER, SIZE OF PAPER, MARGINS, VIEWS, SECTIONAL VIEWS, ARRANGEMENT OF VIEWS, SCALE, CHARACTER OF LINES, SHADING, NUMBERS, LETTERS, & REFERENCE CHARACTERS, LEAD LINES, NUMBERING OF SHEETS, NUMBERING OF VIEWS, CORRECTIONS, and DESIGN DRAWINGS. Includes handwritten notes and checkmarks.

REVIEWER Tang DATE 01/17/01 TELEPHONE NO. 703 305 658
ATTACHMENT TO PAPER NO. 3

- representative of vehicular movement and said transmitter transmitting said signals;
- (b) a receiver, remotely located from said transmitter, that receives said signals transmitted by said traffic monitors; and
 - (c) a computer system interconnected with said receiver and said network;
 - (d) a mobile user station connected to a global positioning system receiver, a display, and a communicating device; and
 - (e) said computer system, in response to a request for traffic information from one of said mobile user stations, providing in response thereto to said one of said mobile user stations traffic information representative of said signals transmitted by said traffic monitors.

16. (Amended once) A system for providing traffic information to a plurality of mobile users connected to a network, comprising:

- (a) a plurality of vehicles, each said vehicle comprising at least a mobile user station, a global positioning system receiver and a transmitter, said mobile user station providing a signal including data representative of a location of said mobile user station and at least one of a speed of said vehicle and an identification code of said mobile user station and said transmitter transmitting said signal;
- (b) a receiver, remotely located from said transmitter that receives said signals transmitted by said user stations; and
- (c) a computer system interconnected with said receiver and said network, said computer system, in response to a request for information from one of said mobile user stations, providing in response thereto to said one of said

mobile user stations information representative of said signals transmitted by said mobile user stations.

REMARKS:

Fan et al., U.S. Patent No. 5,959,577, disclose a system for processing position and travel related information through a data processing station on a data network. In particular, Fan et al. teach the use of a GPS receiver to obtain a measured position fix of a mobile unit. The measured position fix is reported to the data processing station which associates the reported position with a map of the area. Typically, the measured position of the mobile unit is marked and identified by a marker on the map. The area map is then stored in the data processing station and made available for access by authorized monitor units or mobile units. An authorized monitor unit may request a specific area map. This permits shipping companies to monitor the location of their fleet and permits the mobile units to identify their current location in relation to a map, which is particularly suited for the application of navigation to a particular destination. In addition, Fan et al. teach that the measured position data transmitted from the mobile units may be used to calculate the speeds at which the vehicles travel. The collective speed data from the mobile units is then available for use by the monitor units, such as those at the shipping company, to route the vehicles away from traffic congestions and diversions. In this manner, the dispatcher at the shipping company, to which Fan et al. teaches the data is available to, may use the collective speed data to decide which vehicles to contact in order to reroute them.

With respect to claim 1, the Examiner interprets part (a) to incorporate a GPS receiver and its associated transmitter (mobile unit 1 or 3), as shown in FIG. 1 of Fan et al. Also, the Examiner interprets part (b) to include the GPS receiver of the mobile unit (mobile unit 1 or 3), as shown in FIG. 1 of Fan et al. Further, the Examiner interprets part (d) to include the mobile unit (mobile unit 1 or 3), as shown in FIG. 1 of Fan et al. In essence, the Examiner seems to be suggesting that parts (a), (b), and (d) of claim 1 are the GPS receiver of the mobile unit and its associated transmitter.