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(71) Applicant: NAVOX CORPORATION [US/US]; Suite G, 216 Technology Drive, Irvine, CA 92718 (US).

(72) Inventors: HILLMAN, Robert, L.; 27301 Westridge Lane, Laguna Hills, CA 92653 (US). DORR, Barry, L.; 2640 Marquita Place, Carsbad, CA 92009 (US).

(74) Agent: ALTMAN, Daniel, E.; Knobbe, Martens, Olson & Bear, 16th floor, 620 Newport Center Drive, Newport Beach, CA 92660 (US).

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(54) Title: VEHICLE TRACKING AND SECURITY SYSTEM INCORPORATING SIMULTANEOUS VOICE AND DATA COMMU-**NICATION** 

#### (57) Abstract

A system which tracks and monitors a vehicle by utilizing cellular communication componentry and global positioning system componentry is disclosed. The system provides for simultaneous and continuous transmission of a voice signal and location data to a monitoring center. The monitoring center comprises componentry to communicate with the vehicle and determine the vehicle's location on a digitized map using a computer.

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A. CLASSIFICATION OF SUBJECT MATTER IPC 6 B60R25/10 H04 H04Q7/38 H04M11/06 According to international Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) B60R H04M H04Q H04B Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° WO 96 18275 A (STANFORD TELECOMM INC) 12-15,χ 27-31, 13 June 1996 76-78 1,2,5, see the whole document γ 32-36 Α US 5 223 844 A (MANSELL JOHN P ET AL) 12-16, X 18-31, 29 June 1993 76-78 9,10,17, see column 2, line 55 - column 4, line 10 Υ 44,45, 47,49-52 see column 11, line 5 - line 15 see column 13, line 19 - column 15, line see column 20, line 25 - line 36 -/--Patent family members are listed in annex. X Further documents are listed in the continuation of box C. X Ospecial categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the \*A\* document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. \*P\* document published prior to the international filing date but \*&\* document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 2 5. 03. 99 14 December 1998 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016 AREAL CALAMA, A

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Intern nal Application No PCT/US 98/12900

	TO BE DELEVANT	<u></u>
···	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
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national application No.

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)	
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:	
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:	
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:	
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).	
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)	
This International Searching Authority found multiple inventions in this international application, as follows:	
CLAIMS 1-38, 44-52, 76-78 CLAIMS 39-43 CLAIMS 53-68 CLAIMS 69-75	
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.	
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.	
3. As only some of the required additional search fees were timely paid by the applicant, this international Search Report covers only those claims for which fees were paid, specifically claims Nos.:	
No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  1-38, 44-52, 76-78	
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.	

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