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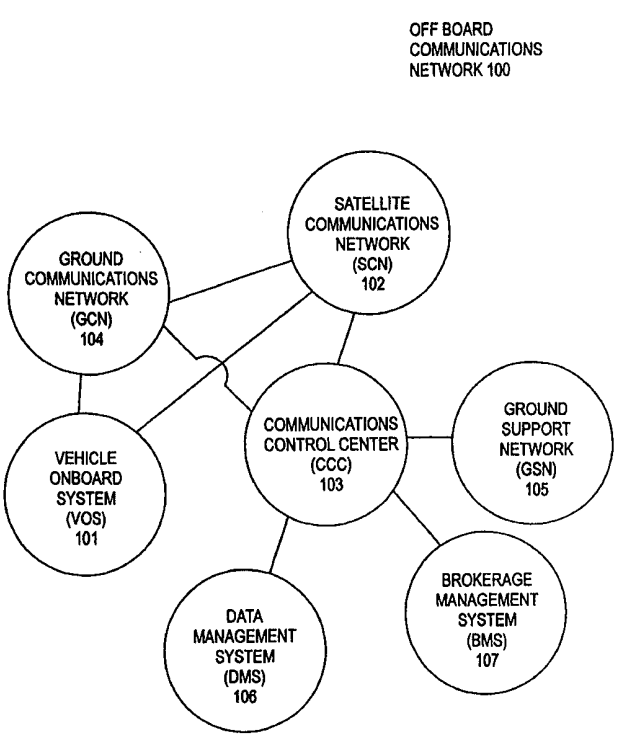
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(54) Title: LAND VEHICLE COMMUNICATIONS SYSTEM AND PROCESS FOR PROVIDING INFORMATION AND COORDINATING VEHICLE ACTIVITIES

(57) Abstract

A communication system architecture (SA) (100) for a vehicle which may be integrated into the vehicle's multiplexed electronic component communication system (112), and a process for communicating with the vehicle (111) to provide information for and about the vehicle's operational status and coordinating the vehicle's activities. The communication system will include a multi-functional antenna system (115) for the vehicle that will have the capability to receive AM/FM radio and television signals, and transmit and receive citizens band (CB) radio signals, satellite and microwave and cellular phone communications. The antenna (115) may be installed as original equipment or as a back-fit part in the after-market. In either case the multi-functional antenna (115) will be integrated with the vehicle's multiplexed electronic component communication system (112). The process for communicating with the vehicle (111) will involve a communication service for which the vehicle's (111) driver will enroll for and service will continue so long as maintenance fees are paid. The service will be capable of providing various levels of information transfer and coordination. The levels may include vehicle information such as (1) the need for servicing and location of the nearest service center with the necessary parts in stock, (2) routing, and (3) load brokering and coordination. The modular design of the system architecture (SA) (100) will allow it to be employed with the vehicle platform (111) that does not possess a full multiplexed electronic component communications system (112). The resulting vehicle (111), using an after-market application package, will be able to participate in some of the services.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/26132

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01M 17/00; G06F 19/00
US CL : 701/33

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)

U.S. : 701/33, 24, 29, 31, 34; 379/58; 340/426, 340/425.5, 825.34, 825.36

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

West: detecting fault, correcting fault, vehicle, communication network, abnormal conditions, ground support network

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,687,215 A (Timm et al.) 11 November 1997. See entire document.	NONE
A	US 5,682,133 A (Johnson et al.) 28 October 1997. See entire document.	
A	US 5,557,254 A (Johnson et al.) 17 September 1996. See entire document.	

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

*	Special 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 invention
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"E"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 21 MAY 2000	Date of mailing of the international search report 06 JUN 2000
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer WM. A. CUCHLINSKI JR Diane Smith for Telephone No. (703) 308-1113

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