A vehicle mounted, navigation device is disclosed. This invention combines a global position system (GPS) with an image capturing system into a portable device that can be optimally mounted within a vehicle. The image capturing system detects and interprets visual information in the vicinity of the vehicle to provide the vehicle operator with appropriate navigational guidance assistance after correcting positioning errors embedded in commercial GPS signals. Additionally, the device has the capability to store consecutive frames of detected visual information so as to enable the device to be used for accident aftermath analysis and the documentation of an event or scene that occurs within the vicinity of the vehicle. The device includes a mounting assembly which enables the device to be used in most automotive vehicles, with the device usually being mounted behind the vehicle’s rearview mirror such that a set of directional turning indicators naturally fall within the vehicle operator’s field of view.
FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

| AL  | Albania                          | AM  | Armenia                        | AT  | Austria                        | AU  | Australia                       | AZ  | Azerbaijan                      | BA  | Bosnia and Herzegovina         | BB  | Barbados                       | BE  | Belgium                        | BF  | Burkina Faso                    | BG  | Bulgaria                       | BJ  | Benin                          | BR  | Brazil                         | BY  | Belarus                        | CA  | Canada                         | CF  | Central African Republic       | CG  | Congo                          | CH  | Switzerland                    | CI  | Côte d’Ivoire                  | CM  | Cameroon                       | CN  | China                          | CU  | Cuba                           | CZ  | Czech Republic                 | DE  | Germany                        | DK  | Denmark                        | EE  | Estonia                        | ES  | Spain                          | FI  | Finland                        | FR  | France                         | GA  | Gabon                          | GB  | United Kingdom                 | GE  | Georgia                        | GH  | Ghana                          | GN  | Guinea                         | GR  | Greece                         | HU  | Hungary                        | IE  | Ireland                        | IL  | Israel                         | IS  | Iceland                        | IT  | Italy                          | JP  | Japan                          | KE  | Kenya                          | KG  | Kyrgyzstan                      | KP  | Democratic People’s Republic of Korea | KR  | Republic of Korea             | LC  | Saint Lucia                    | LI  | Liechtenstein                  | LK  | Sri Lanka                      | LR  | Liberia                        | LS  | Lesotho                        | LT  | Lithuania                      | LU  | Luxembourg                     | LV  | Latvia                         | MC  | Monaco                         | MD  | Republic of Moldova            | MG  | Madagascar                     | MK  | The former Yugoslavia          | ML  | Mali                           | MN  | Mongolia                       | MR  | Mauritania                     | MW  | Malawi                         | MX  | Mexico                         | NE  | Niger                          | NL  | Netherlands                    | NO  | Norway                         | NZ  | New Zealand                    | PL  | Poland                         | PT  | Portugal                       | RO  | Romania                        | RU  | Russian Federation             | SD  | Sudan                          | SE  | Sweden                         | SG  | Singapore                      | SI  | Slovenia                       | SK  | Slovakia                       | SN  | Senegal                        | SZ  | Swaziland                      | TD  | Chad                           | TG  | Togo                           | TJ  | Tajikistan                     | TM  | Turkmenistan                    | TR  | Turkey                         | TT  | Trinidad and Tobago            | UA  | Ukraine                        | UG  | Uganda                         | US  | United States of America       | UZ  | Uzbekistan                     | VN  | Viet Nam                       | VU  | Yugoslavia                     | ZW  | Zimbabwe                       |
A. **CLASSIFICATION OF SUBJECT MATTER**
   IPC(G) :006F 165/00, G06G 7/78, G03B 17/38, G08G 1/123  
   US CL. : 701/27, 701/207, 369/429, 340/995  
   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)

   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 practicable, search terms used)
   APS: image?, vehicle, image capture, microprocessor, storage device, GPS, navigation

C. **DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 5,790,403 (NAKAYAMA) 04 AUGUST 1998, See Abstract.</td>
<td>24-43</td>
</tr>
<tr>
<td>A</td>
<td>US 5,504,482 (SCHREDER) 02 APRIL 1996, See Abstract</td>
<td>24-43</td>
</tr>
<tr>
<td>A</td>
<td>US 5,596,382 (BAMFORD) 21 JANUARY 1997, See Abstract</td>
<td>24-43</td>
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</tbody>
</table>

Further documents are listed in the continuation of Box C.

See patent family annex.

Date of the actual completion of the international search
20 MAY 1999

Date of mailing of the international search report
02 FEB 2000

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks
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