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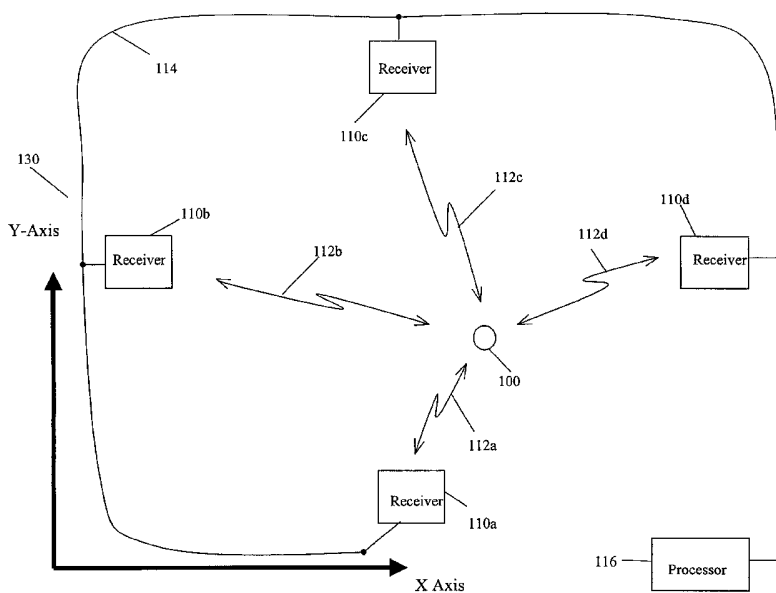
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(88) Date of publication of the international search report:
18 March 2004

[Continued on next page]

(54) Title: LOW-COST, LOW-POWER GEOLOCATION SYSTEM



(57) Abstract: A system and method for determining the location of a transmission source by processing the magnitude of the transmitted signal received at a plurality of receivers with a statistical model of the signal propagation characteristics associated with the signal space between the source and each of the receivers. The system and method also are capable of determining a route of travel between the transmission source and a receiver and/or alternate location.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inte.....onal Application No

PCT/US 03/14937

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01S11/06

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)

IPC 7 G01S

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)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/05508 A (AIRBORNE RES ASS) 13 February 1997 (1997-02-13) abstract	1,14
A	page 7, line 27 - page 24, line 9; figures 1-17	2-5, 7-12, 15-18, 20-25
A	DE 28 49 282 A (LICENTIA GMBH) 29 May 1980 (1980-05-29) page 5, line 23 - page 7, line 8; figure	1-4, 14-17
A	WO 01/006274 A (SNAPTRACK INC) 25 January 2001 (2001-01-25) abstract page 2, line 28 - page 10, line 26; figures 1-6	1,14



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

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"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

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"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

"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.

"&" document member of the same patent family

Date of the actual completion of the international search

18 August 2003

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 03/14937

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:

see additional sheet

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.:
4. ☒ 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.:

1-26

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-26

method and system for determining the location of a
transmission source comprising a plurality of signal
receiving locations

2. claim: 27

system for determining the location of a transmission source
comprising a log likelihood function

INTERNATIONAL SEARCH REPORT

Information on patent family members

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