

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
2 May 2008 (02.05.2008)

PCT

(10) International Publication Number  
**WO 2008/051292 A3**

(51) **International Patent Classification:**  
GO/5 13/93 (2006.01)

(21) **International Application Number:**  
PCT/US2007/009130

(22) **International Filing Date:** 10 April 2007 (10.04.2007)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**  
60/790,924 10 April 2006 (10.04.2006) US

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(81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

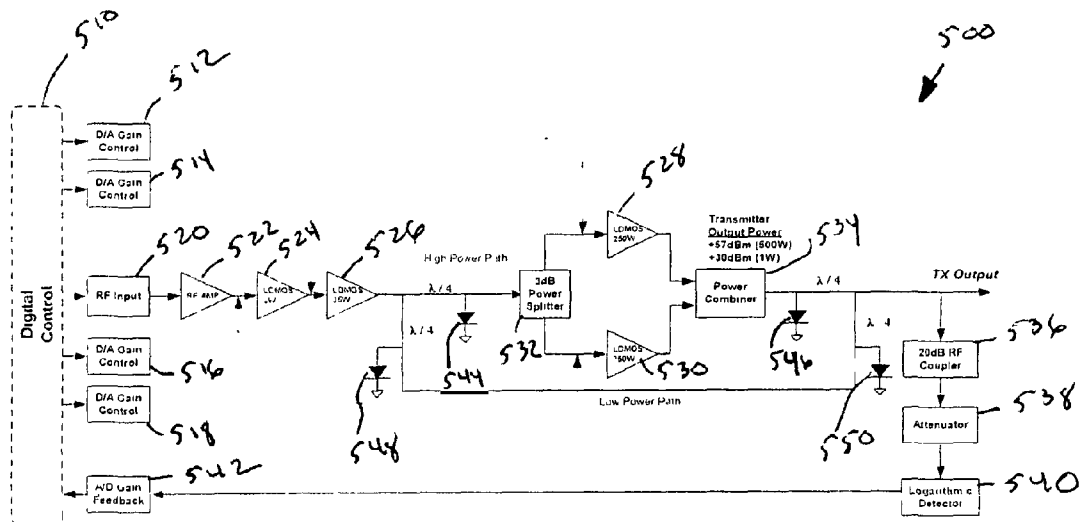
(84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) **Date of publication of the international search report:**  
24 July 2008

(54) **Title:** SYSTEMS AND METHODS OF PROVIDING WHISPER SHOUT SURVEILLANCE WITH A TCAS



(57) **Abstract:** A collision avoidance system is delineated comprising a TCAS transmitter having a feed forward path with a plurality amplifiers for providing to a TCAS transmitter output a TCAS transmitter output transmission, a feedback path coupled to the TCAS transmitter output for providing a feedback signal, and a controller for receiving the feedback signal and generating control signals for providing to one or more of the plurality of amplifiers for controlling the respective outputs of the one or more amplifiers to drive the TCAS transmitter output transmission to a predefined level.

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2007/009130

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. G01S13/93

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)  
GOIS H03G

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, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| Y         | US 2002/014986 A1 (RINGWALD RAND [US] ET AL RINSWALD RAND [US] ET AL)<br>7 February 2002 (2002-02-07)<br>abstract; figure 4<br>paragraph [0013] - paragraph [0014]<br>paragraph [0030] - paragraph [0031]<br>paragraph [0040] | 1-18                  |
| Y         | US 5 920 277 A (FOSTER JEREMY LE NEVE [GB] ET AL) 6 July 1999 (1999-07-06)<br>abstract; figure 2<br>column 3, line 3 - line 10<br>column 4, line 66 - column 5, line 23   | 1-18                  |
| A         | US 5 903 192 A (LUDWIG MICHAEL [DE] ET AL) 11 May 1999 (1999-05-11)<br>column 1, line 28 - line 32<br>column 2, line 65 - column 3, line 48   | 1,10                  |

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

\* Special categories of cited documents :

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| <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(ε) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> | <p>"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</p> <p>"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</p> <p>"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.</p> <p>"&amp;" document member of the same patent family</p> |
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| Date of the actual completion of the international search | Date of mailing of the international search report |
| 28 May 2008   | 04/06/2008   |

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| Name and mailing address of the ISA/<br>European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040; Tx.-31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Authorized officer<br><br>Niemeijer, Reint |
|---|--|

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/009130

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date  |
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