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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, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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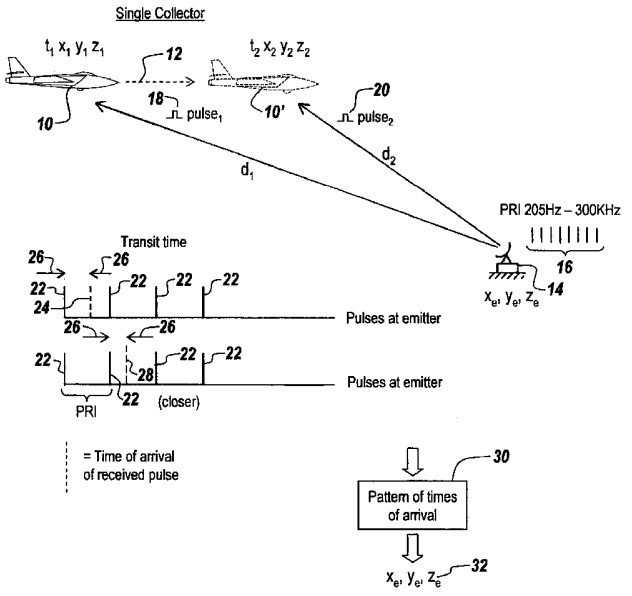
[Continued on next page]

(54) **Title:** COHERENT GEOLOCATION SYSTEM



(57) **Abstract:** A coherent TOA system is provided for rapidly ascertaining the position of a pulse train emitter such as a radar. Techniques are provided to estimate the underlying repetition interval of the emitter and to do the TOA processing knowing which of the particular pulses is being detected at a collector, thus surmounting the effect of gaps in the received pulse stream. The subject system is preferable to conventional time-difference-of-arrival geolocation systems which require that each of the collecting platforms measure the same pulse from the emitter, and also to non-coherent TOA systems whose accuracy is less than that achievable with the subject coherent system for the same amount of data.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/18049

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **G01S 1/24**(2006.01)

USPC: 342/387,442,443,444,457,463
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. : 342/387, 442, 443, 444, 457, 463

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,708,443 A (ROSE) 13 January 1998, see entire document.	1-19
X	US 5,119,104 A (HELLER) 02 June 1992, see entire document.	1-19
X	US 5,191,342 A (ALSUP et al.) 02 March 1993, see entire document.	1-19

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

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