



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : G01S 5/14, 5/00	A1	(11) International Publication Number: WO 00/36431 (43) International Publication Date: 22 June 2000 (22.06.00)
(21) International Application Number: PCT/US99/16111 (22) International Filing Date: 15 July 1999 (15.07.99) (30) Priority Data: 09/132,556 11 August 1998 (11.08.98) US (71) Applicant: SNAPTRACK, INC. [US/US]; Suite 250, 4040 Moorpark Avenue, San Jose, CA 95117 (US). (72) Inventor: KRASNER, Norman, F.; 1 Torino Lane, San Carlos, CA 94070 (US). (74) Agents: SCHELLER, James, C., Jr. et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: METHOD AND APPARATUS FOR ACQUIRING SATELLITE POSITIONING SYSTEM SIGNALS**(57) Abstract**

A method and an apparatus which acquire satellite positioning system (SPS) signals in an SPS receiver. Information on time of day, approximate receiver location, and satellite positions are used to reduce the time to search and acquire signals from one or more SPS satellites. In an example of a method of the invention, a first pseudorange to a first SPS satellite is determined, and an approximate location of the SPS receiver is determined. An estimated pseudorange for a second pseudorange to a second SPS satellite is determined from the approximate location and a satellite position of the second SPS satellite. The SPS receiver then searches for SPS signals from the second SPS satellite in a range determined by the estimated pseudorange. Typically, this method reduces the search time to initially acquire SPS signals from the second SPS satellite, and the estimated pseudorange is not based on a previously determined pseudorange for said second SPS satellite. In a particular example of the invention, the approximate location is determined from a cell based information source which correlates an identification of each of various wireless cell sites with an approximate location for objects within a cell of a wireless cell based communication system, such as a cellular (or cell based) telephone system. In other examples of the invention, relatively precise time of day information may be used with information indicating satellite positions and information indicating the approximate location to determine an estimated pseudorange for a first SPS satellite to be acquired.

