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Hynes et al.

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(54) **GPS TRACKER**
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5,905,461 A * 5/1999 Neher 342/357
6,298,306 B1 * 10/2001 Suarez et al. 701/213
6,301,545 B1 10/2001 Brodie
6,320,535 B1 * 11/2001 Hillman et al. 342/357.1
6,339,745 B1 1/2002 Novik

* cited by examiner

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(57) **ABSTRACT**

A vehicle tracking system that includes a plurality of trackers, each adapted to be attached to a respective movable vehicle, and a remotely located controller for individually polling by radio each of the trackers to determine the position of the polled tracker. Each tracker includes a positioning receiver which receives satellite signals from a Global Positioning System and transmits a first positioning signal containing the position of the tracker to a micro controller unit. The micro controller unit receives the signal and transmits a second positioning signal containing the position of the tracker to a communicator. The communicator radios the second positioning signal to the remotely located controller to communicate the position of the tracker in response to a radioed polling signal from the remotely located controller.

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(58) **Field of Search** **342/357.01, 357.06, 342/357.07, 357.09, 457; 701/207, 213, 215, 222**

(56) **References Cited**
U.S. PATENT DOCUMENTS
5,223,844 A * 6/1993 Mansell et al. 342/357

19 Claims, 2 Drawing Sheets

