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(54) **AUTOMATED BALLISTIC CONSTANT DETERMINATION**

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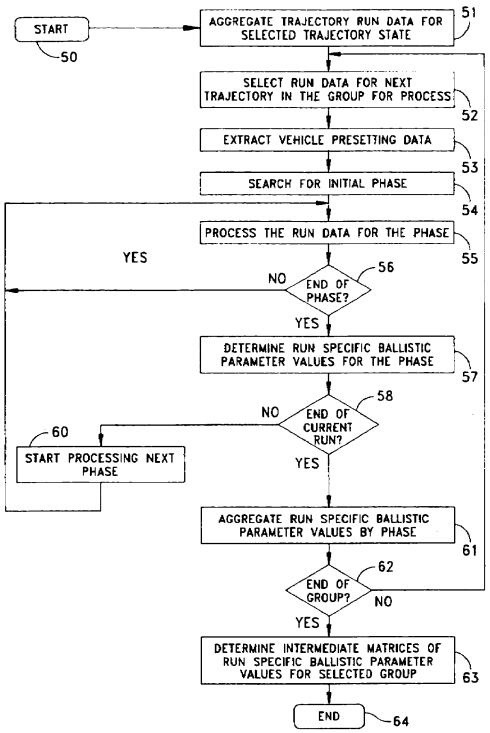
(57) **ABSTRACT**

A method for the automated generation of ballistic constants for use in a trajectory control system. The potential trajectory of a pursuing vehicle is divided into a plurality of multiple sequential phases wherein each phase is characterized by a plurality of ballistic parameters. Known simulated data from a number of runs concerning the pursuing vehicle is analyzed. Ballistic parameter values for each run are obtained and statistically analyzed to produce generic constants for a particular set of operating conditions. Resulting matrices are stored as part of a two-dimensional, kinematic vehicle model to facilitate the propagation of projected trajectories during firing control solutions.

20 Claims, 6 Drawing Sheets