Parameter selection algorithm for proportional navigation aircraft guidance based on target position

© A.N. Klishin, O.S. Shvyrkina

Bauman Moscow State Technical University, Moscow, 105005, Russia

Employing aircraft guidance at the final trajectory span should ensure that the consequences of previous manoeuvres along with deviations of real trajectory from nominal homing trajectory are eliminated. At present, trajectory guidance methods do not completely satisfy the requirements for efficiently reaching ground targets. Therefore, developing algorithms of trajectory guidance to collectively increase accuracy and potential stationary object reaching zone is a pressing problem. The primary objective of the study is to synthesise and validate implementation of an object guidance algorithm based on selecting proportional guidance parameters with the help of empirical dependences, so that the algorithm makes it possible to execute the tasks posed. Guidance based on the algorithm developed made it possible to improve guidance quality by increasing accuracy and expanding the target reaching zone threefold.

Keywords: *guidance methods, accuracy, aircraft.*

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Klishin A.N. (b. 1975) graduated from Bauman Moscow State Technical University in 1999. Assoc. Professor, Department of Dynamics and Flight Control of Rockets and Spacecraft, Bauman Moscow State Technical University. Author of over 150 scientific and popular science publications in the fields of ballistics, flight dynamics, aircraft motion guidance and armament history.

Shvyrkina O.S. (b. 1992), a student, Department of Dynamics and Flight Control of Rockets and Spacecraft, Bauman Moscow State Technical University.
e-mail: bonjour15@mail.ru