Method of calculating the parameters of the effective placement of the points-based unmanned aircraft within the Earth remote sensing system

© V.V. Zelentsov[1], A.S. Sviridov[2], L.A. Shapovalov[1]

[1]Bauman Moscow State Technical University, Moscow, 105005, Russia
[2] JSC «Military-Industrial Corporation «NPO Mashinostroyenia», Reutov, Moscow Region, 143966, Russia

Within the framework of defining image of remote sensing system we consider the problem of efficient allocation of basing UAVs points and calculating their number at each home in order to achieve a given level of continuity or redundancy observation.
The criteria of effectiveness of the system and method to verify its adequacy are presented, where fore a method for calculating the coefficient of observability is described.

Keywords: arrangement, point-based, unmanned, lifting vehicle, efficiency, remote, sensing, Earth.

Zelentsov V.V. (b. 1933) graduated from Bauman Moscow Higher Technical School in 1957. Ph. D., Assoc. Professor of the Aerospace Systems Department at Bauman Moscow State Technical University. Author of more than 40 publications in the field of aircraft design.

Sviridov A.S. (b. 1983) graduated from Bauman Moscow State Technical University in 2006. Design Engineer at JSC «Military-Industrial Corporation «NPO Mashinostroyenia». Author of three publications in the field of remote sensing of the Earth.

Shapovalov L.A. (b. 1986) graduated from Bauman Moscow State Technical University in 2009. Post-graduate student of the Aerospace Systems Department at Bauman Moscow State Technical University. Author of eight publications in the field of aircraft design.