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# WAYS TO ENSURE THE SAFETY OF THE CREW OF THE SPACECRAFT AT THE LAUNCH SITE DURING THE LAUNCH

**Abstract**

Various scenarios of rescue missions of manned spacecraft during the starting period are considered in terms of aerodynamics and ballistics.

Selection of specific scenarios implemented in the numerical solution of variational problems in three-dimensional ballistic statement.

Aerodynamic characteristics for different modes operations are defined numerically using packages FINE™/Open, FINE™/Turbo.

Using the methodology of mathematical modeling it allowed to determine critical modes of operation and find a particular form, associated with aerodynamic resistance models at low speeds.