Computational study of gas dynamic processes at startup of the propulsion of emergency rescue system

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The article considers the results of numerical simulation of unsteady gas-dynamic processes accompanying start-up of perspective emergency rescue system propulsion. The computation was performed for a number of specific points of the injection trajectory using FloEFD package. It is shown that the maximum transient loads occur when firing thruster of emergency rescue system on the starting point of the trajectory corresponding to the conditions at the Earth's surface.

Keywords: *propulsion system, unsteady jet flow, emergency rescue system, thruster duty cycle; jet-shock interaction.*

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