

Structural and aerodynamic features of high-supersonic-speed cruise missiles

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The paper specifies structural and aerodynamic features of long-range cruise missiles moving at a high supersonic speed. The issue refers to the cruise missile “Meteorite” developed by the industrial cooperation headed by the “NPO Mashinostroyeniya” scientific-production association in 1980–1990s. This cruise missile is perfectly aerodynamically balanced during cruise-flight conditions. Its cruise lift/drag ratio is a record-setting one in the considered rocket class. “Meteorite” is one of the highest achievements of the Russian rocket engineering. Nevertheless, it is shown that development of intermediate flight modes requires greater efforts and necessitates overcoming many technical risks.

Keywords: *cruise missile, aerodynamic design, sustainer, booster, aerodynamic controls.*

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