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Title : Stress Analysis of Prithvi Missile Wing Subjected to Aerodynamic Forces

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Abstract :

The stress problem of Prithvi missile wing is investigated. The analysis is carried out by the finite element method by using the ASKA software package. Finite element analysis is carried out for pressure loading, and thermal loading arising from aerodynamic heating. The analysis for pressure loading indicates that there is stress concentration at the wing root region; results obtained for various cases of this loading are presented and discussed. The distortion of the wing produced by aerodynamic heating has also been displayed.