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Low Speed Aerodynamic Performance Experimental Study of NACA 23012 Half-Span Wing

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Abstract	A six-component force balance was used to obtain the aerodynamic performance of a NACA 23012 half-span wing model at low freestream speeds of 20 m & centerdot;s-1 to 50 m & centerdot;s-1. The half-span wing model is equipped with a leading-edge slat and a trailing-edge flap. The impact on aerodynamic performance by the slat and flap configurations of the half-span wing model is studied. Abundant high Reynolds number aerodynamic performance studies have been carried out on various well-known airfoil profiles, but lowspeed aerodynamic performance studies are limited. This work will be used as a benchmark study to support researchers working on NACA 23012 airfoils or wings at low speeds.
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