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Experimental and numerical study on the aerodynamics and stability characteristics of a canard aircraft (Article)

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Abstract

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Modern day fighter aircrafts are mostly canard configured because of its advantages over conventional configuration. The primary objective of this work is to investigate the low speed aerodynamic and stability characteristics of a canard configured aircraft. Using CFD -ANSYS Fluent package, numerical flow simulations were carried out for a typical canard configuration such as Burt Rutan's VariEze, a composite homebuilt canard aircraft. To validate the numerical results, wind tunnel testing of a scaled model was carried out. Finally the effect of horizontal location of canard on the aerodynamics and stability characteristics was studied. © 2019 Penerbit Akademia Baru.

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