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COMPUTATIONAL INVESTIGATION OF A BLENDED WING BODY AT LOW SPEEDS

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Abstract

Experiments and computations were made on a blended wing body at a free stream velocity of 18 m/s and at different AoA. Experiments consisted of flow visualizations using oil and tuft flow techniques. Computations were made using the commercial software ANSYS Fluent. Results indicated a highly complex flow behavior in the leeward side of the blended wing body. Reasonable agreement between experiments and computations was observed.

Keywords: CFD, Vorticity, BWB, Lift, Drag, TAW