

AERODYNAMIC CALCULATION OF INNOVATIVE EVALUATION PLATFORM - IEP

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Abstract. This paper presents an aerodynamic calculation of two configurations of IEP (Innovative Evaluation Platform) aircraft. The calculation was made using multigrid procedure with Cartesian mesh structure to discretize the governing Euler equations for inviscid compressible flow. Next, the result of inviscid calculation was modified by boundary layer method. The IEP aircraft was designed within NACRE Project (New Aircraft Concepts REsearch) sponsored by European Union under VI Framework. Results of calculations of both configurations were compared with results of wind tunnel tests.

Keywords. Aerodynamic analysis, Numerical analysis