



MC-21 COMPOSITE FULL-SCALE WING DELIVERED TO TSAGI FOR ENDURANCE TESTING

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In January, a composite full-scale wing of the MC-21 aircraft was delivered to the Zhukovsky Central AeroHydrodynamic Institute (TsAGI, a member of the National Research Center “Zhukovsky Institute”). The unit will be used for fatigue and endurance testing for high-lift devices of the wing at different slat and flap angles. The work has been commissioned by JSC Irkut Corporation.

The purpose of the studies is to confirm operational capability of control system units with slats and flaps during the aircraft’s operation. The tests should confirm that all units contribute to increasing flight safety.

Later, the wing will be installed on a special test bench in the endurance testing laboratory of the Strength Research Department of TsAGI. The unit will be equipped with a loading system for applying periodic variable loads to slats and flaps, and sensors will be installed to control and monitor this process.

Engineers of JSC Irkut Corporation jointly with TsAGI’s experts have developed several flight cycles, each of which simulates operational impacts on wing lift devices during the flight of the MC-21 aircraft.

During the first testing stage the unit will be exposed to 60 thousand flight cycles. As a result, TsAGI engineers will confirm the strength of the elements to ensure an initial safety life of several years, as well as obtain new data to design structures made of composite materials.



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