Options of control system architectures for short-medium haul aircraft

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One of the promising areas for the aircraft control system development is an increase in the electrification extent due to an alteration in the architecture of the control system power section. The article considers various options of the architecture of the short-medium haul aircraft control system, using drives with electric power supply, such as electrohydrostatic, combined and electromechanical steering gears. Based on go-no-go evaluation of the proposed options of the architecture of the short-medium haul aircraft control systems and subject to the requirements of the applicable aviation regulations, the most promising options were selected for the further evaluation based on a set of criteria: criteria of mass and energy perfection, dynamic performance, operating costs, etc.

Keywords: *control system architecture, control system reliability, steering gear, redundancy, combined gear, hydrostatic gear*

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