

Federal Aviation Regulation

▼ Sec. 25.671

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| Part 25 AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES | |
| Subpart D--Design and Construction | Control Systems |

Sec. 25.671

General.

- (a) Each control and control system must operate with the ease, smoothness, and positiveness appropriate to its function.
- (b) Each element of each flight control system must be designed, or distinctively and permanently marked, to minimize the probability of incorrect assembly that could result in the malfunctioning of the system.
- [(c) The airplane must be shown by analysis, tests, or both, to be capable of continued safe flight and landing after any of the following failures or jamming in the flight control system and surfaces (including trim, lift, drag, and feel systems), within the normal flight envelope, without requiring exceptional piloting skill or strength. Probable malfunctions must have only minor effects on control system operation and must be capable of being readily counteracted by the pilot.
- (1) Any single failure, excluding jamming (for example, disconnection or failure of mechanical elements, or structural failure of hydraulic components, such as actuators, control spool housing, and valves).
- (2) Any combination of failures not shown to be extremely improbable, excluding jamming (for example, dual electrical or hydraulic system failures, or any single failure in combination with any probable hydraulic or electrical failure).
- (3) Any jam in a control position normally encountered during takeoff, climb, cruise, normal turns, descent, and landing unless the jam is shown to be extremely improbable, or can be alleviated. A runaway of a flight control to an adverse position and jam must be accounted for if such runaway and subsequent jamming is not extremely improbable.
- (d) The airplane must be designed so that it is controllable if all engines fail. Compliance with this requirement may be shown by analysis where that method has been shown to be reliable.]

Amdt. 25-23, Eff 5/8/70

► Comments

▼ Document History

Notice of Proposed Rulemaking Actions:

Notice of Proposed Rulemaking. Notice No. [68-18](#); Issued on 08/16/68.

Final Rule Actions:

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