§ 27.672 Stability augmentation, automatic, and power-operated systems.

(b) Each element of each flight control system must be designed, or distinctively and permanently marked, to minimize the probability of any incorrect assembly that could result in the malfunction of the system.

§ 27.673 Primary flight control.

Primary flight controls are those used by the pilot for immediate control of pitch, roll, yaw, and vertical motion of the rotorcraft.

[Amdt. 27–21, 49 FR 44434, Nov. 6, 1984]

§ 27.674 Interconnected controls.

Each primary flight control system must provide for safe flight and landing and operate independently after a malfunction, failure, or jam of any auxiliary interconnected control.

[Amdt. 27–26, 55 FR 8001, Mar. 6, 1990]

§ 27.675 Stops.

(a) Each control system must have stops that positively limit the range of motion of the pilot’s controls.

(b) The design of the stability augmentation system or of any other automatic or power-operated system must allow initial counteraction of failures without requiring exceptional pilot skill or strength by overriding the failure by movement of the flight controls in the normal sense and deactivating the failed system.

(c) It must be shown that after any single failure of the stability augmentation system or any other automatic or power-operated system—

1. The rotorcraft is safely controllable when the failure or malfunction occurs at any speed or altitude within the approved operating limitations;

2. The controllability and maneuverability requirements of this part are met within a practical operational flight envelope (for example, speed, altitude, normal acceleration, and rotorcraft configurations) which is described in the Rotorcraft Flight Manual; and

3. The trim and stability characteristics are not impaired below a level needed to permit continued safe flight and landing.

[Amdt. 27–21, 49 FR 44433, Nov. 6, 1984; 49 FR 47594, Dec. 6, 1984]

§ 27.679 Control system locks.

If there is a device to lock the control system with the rotorcraft on the ground or water, there must be means to—

(a) Give unmistakable warning to the pilot when the lock is engaged; and

(b) Prevent the lock from engaging in flight.

[Amdt. 27–21, 49 FR 44433, Nov. 6, 1984; 49 FR 47594, Dec. 6, 1984]