

M-TS-0000677

M-TS Issue: 2

Equivalent Safety Finding

Wing Flap Control Position

1) APPLICABILITY

This ESF is applicable to CS-25 Large Aeroplanes where the flaps lever position does not directly comply with CS 25.777 (e).

1.1 AFFECTED CS

CS 25.777 (e) Amdt. 28

"... (e) Wing-flap controls and other auxiliary lift device controls must be located on top of the pedestal, aft of the throttles, centrally or to the right of the pedestal centre line, and not less than 25 cm (10 inches) aft of the landing gear control."

2) STATEMENT OF EQUIVALENT SAFETY FINDING

In lieu of showing direct compliance with the CS identified in chapter 1.1, and provided that the compensating factors in Section 3 are demonstrated, the cockpit design may feature wing-flap controls position not fully aft of the throttle quadrant.

3) COMPENSATING FACTORS

- a) The wing-flap control and throttle levers each must require a different type of crew effort to initiate motion to provide an additional safeguard against inadvertent operation.
- b) The design control separation distance (vertical and lateral) between the wing-flap control and adjacent controls should provide adequate hand clearance for either pilot to operate controls without disturbing other controls or pilot operations
- c) To enable both the flight crew members to observe the control lever positions from their seated position:

From either pilot seat looking forward (either looking along flight path or viewing the primary flight display (PFD)), eye movement (and in some instances slight head movement) will allow either pilot to visually identify the wing-flap control handle position. The flap control lever position should be readily identifiable by both flight crew members (as opposed to a design having the lever located fully aft of throttles).

Compliance should be substantiated by representative evaluations such as cockpit mock-ups, engineering assessments, simulator evaluations and, where appropriate, flight tests.