

concurrently with the positive maneuvering load factor (points A<sub>2</sub> to D<sub>2</sub>, §25.333(b)). This negative pitching acceleration must be equal to at least

$$\frac{-26n}{v} (n - 1.5), \text{ (Radians/sec.}^2\text{)}$$

where—

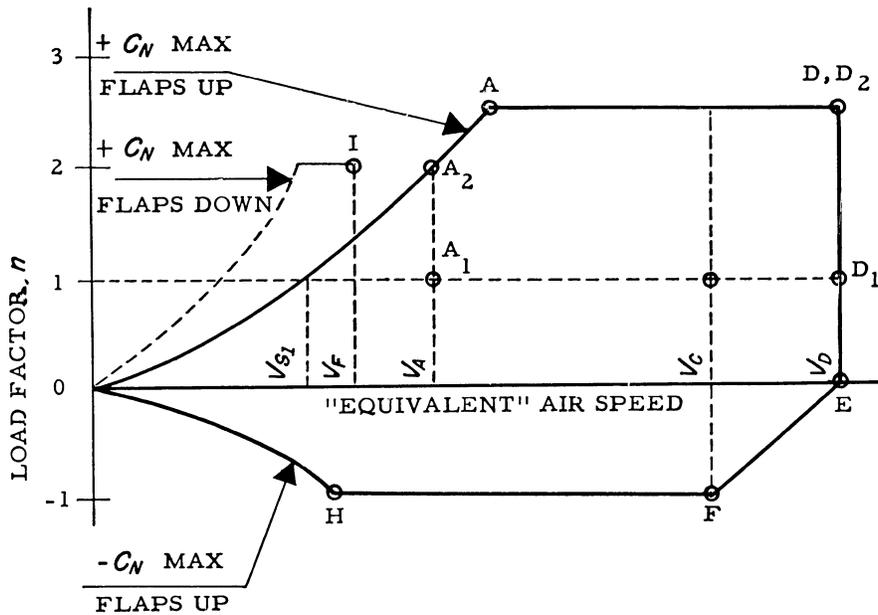
n is the positive load factor at the speed under consideration; and V is the airplane equivalent speed in knots.

[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25-23, 35 FR 5672, Apr. 8, 1970; Amdt. 25-46, 43 FR 50594, Oct. 30, 1978; 43 FR 52495, Nov. 13, 1978; 43 FR 54082, Nov. 20, 1978; Amdt. 25-72, 55 FR 29775, July 20, 1990; 55 FR 37607, Sept. 12, 1990; Amdt. 25-86, 61 FR 5220, Feb. 9, 1996; Amdt. 25-91, 62 FR 40704, July 29, 1997]

**§ 25.333 Flight maneuvering envelope.**

(a) *General.* The strength requirements must be met at each combination of airspeed and load factor on and within the boundaries of the representative maneuvering envelope (V-n diagram) of paragraph (b) of this section. This envelope must also be used in determining the airplane structural operating limitations as specified in §25.1501.

(b) *Maneuvering envelope.*



[Doc. No. 5066, 29 FR 18291, Dec. 24, 1964, as amended by Amdt. 25-86, 61 FR 5220, Feb. 9, 1996]

**§ 25.335 Design airspeeds.**

The selected design airspeeds are equivalent airspeeds (EAS). Estimated values of V<sub>S0</sub> and V<sub>S1</sub> must be conservative.

(a) *Design cruising speed, V<sub>C</sub>.* For V<sub>C</sub>, the following apply:

(1) The minimum value of V<sub>C</sub> must be sufficiently greater than V<sub>B</sub> to provide for inadvertent speed increases likely to occur as a result of severe atmospheric turbulence.

(2) Except as provided in §25.335(d)(2), V<sub>C</sub> may not be less than V<sub>B</sub> + 1.32 U<sub>REF</sub>