gravity location and aerodynamic drag and lift degradation effects.

ASYMMETRIC LOADS

Aircraft handling with asymmetrical store configurations is affected primarily by weight imbalance. These effects are more noticeable at lower airspeeds. With the extreme permitted asymmetry on underwing pylon the aileron control force is fully trimable above 350 km/h (190 kts).

Approach and landing shall be performed with the speed increased by approximately 20 to 30 km/h (10 to 15 kts) related to normal clean variant, with increased but undisturbing aileron control force. When landing in asymmetric configuration is necessary, the approach and landing should be carefully planed and executed, considering the runway length, crosswind and increased landing speed.

STALLS (Figures 6–1 and 6–2)

The stalling characteristics are satisfactory in both 1g flight and under load factor. Aircraft behavior is similar in all configurations (flaps deflection, landing gear position, power setting) with only airspeed differences. The stall (departure) is characterized by slight airframe buffet following gradu-ate airspeed loss of 2 km/h per second (1.1 kt per sec) and consequent nose–down pitch motion. Full controllability during stall is typical for the aircraft. Possible wing drop is easily corrected by ailerons, no rudder inputs are necessary.

Recovery is easy and almost immediate after stick releasing, with the height loss up to 100 m (330 ft). Stall speeds with respect of aircraft weight (gross weight) are depicted in figure 6–1 and in figure 6–2. Clean aircraft means aircraft with underwing pylons unloaded too. Aircraft with stores lines can be used especially for forward extended stores (ahead the leading edge). Engine thrust can affect these figures by approximately 10 km/h (5 KTAS) in sense of lowering the stall speed (when engine power is maximal). After nose lowering the aircraft gradually regains the speed and can be levelled without special effort.

Dynamic stall can be entered at the speeds about 20 to 40 km/h (10–20 kt) higher then quoted stall speeds, with rapid full aft stick, causing quicker deceleration.

High "g" stalls are accomplished during descending tightened turns when pulling with 2 to 8 g's and reaching the buffet boundaries depending on weight, altitude and speed. With full aft stick the turn rate temporary increases, followed by full stall with leaving the turn. Aircraft tends to level wings and behave as in normal stall.

Configuration		Without stores		With stores	
A/C Gross Weight		3,700	4,500	4,600	4,700
Flaps deflection LG position	0°, retracted	172	190	196	198
	25°, extended	157	173	182	184
	44°, extended	148	163	174	176

AB-1-(84)

Figure 6–1. Table of Stall Speeds

Data Basis: Estimated
Date: July 30, 1997

Conditions: Idle Power Setting
Standard Day

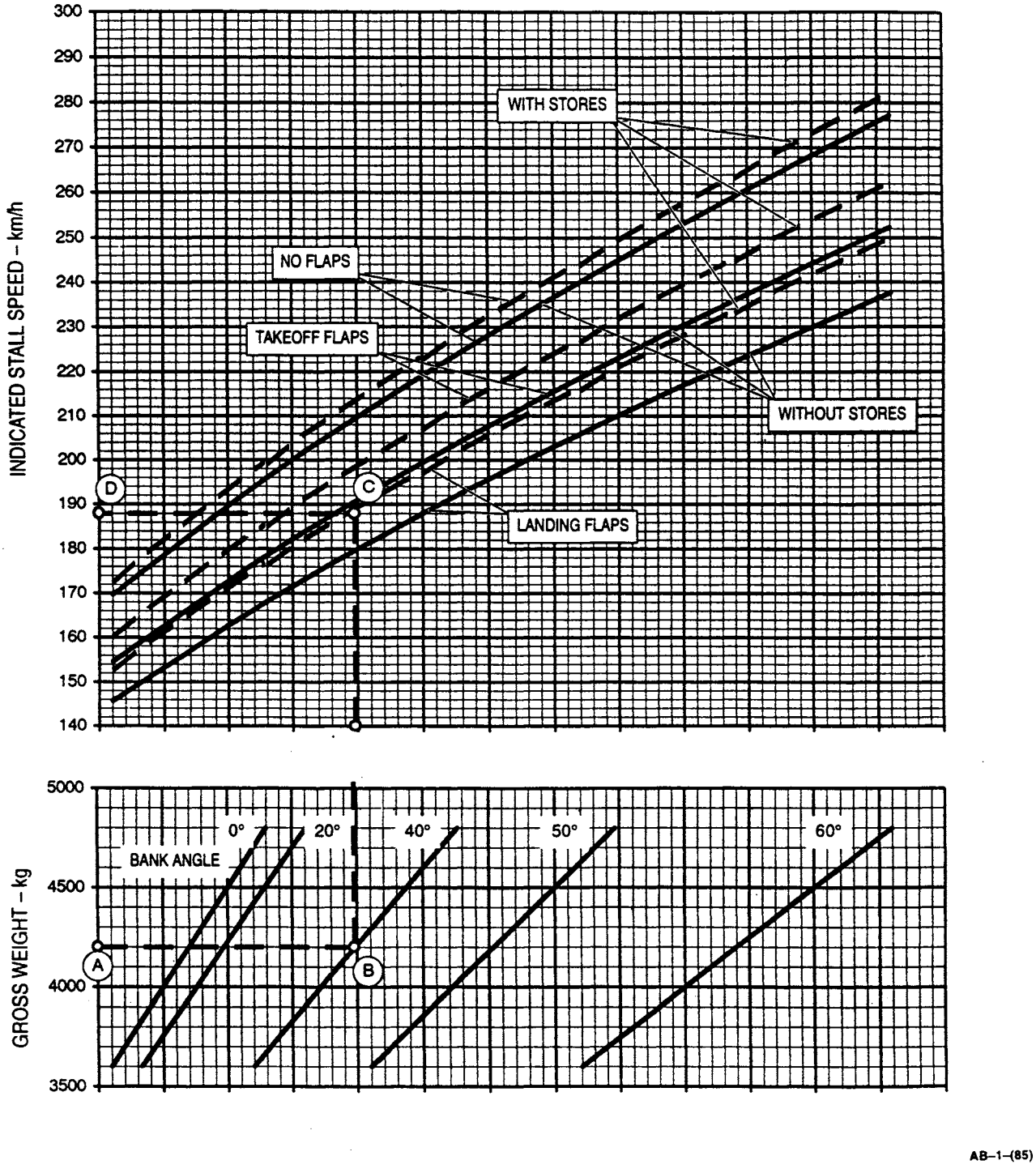

Figure 6-2. Stall Speed