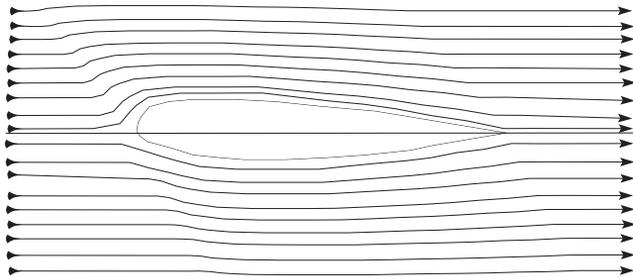


(a)



(b)

Figure 2.1

Flow around an airfoil. (a) Flow around a symmetric airfoil section and (b) flow around an asymmetric airfoil section.

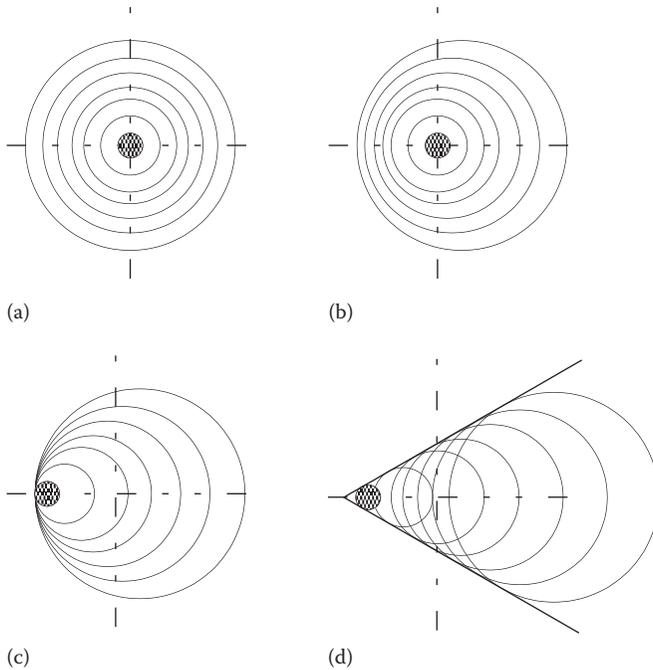


Figure 2.2

Propagation of spherical disturbances from a point source in (a) an incompressible flow, (b) compressible flow at subsonic speeds, (c) transonic speeds and (d) supersonic speeds.

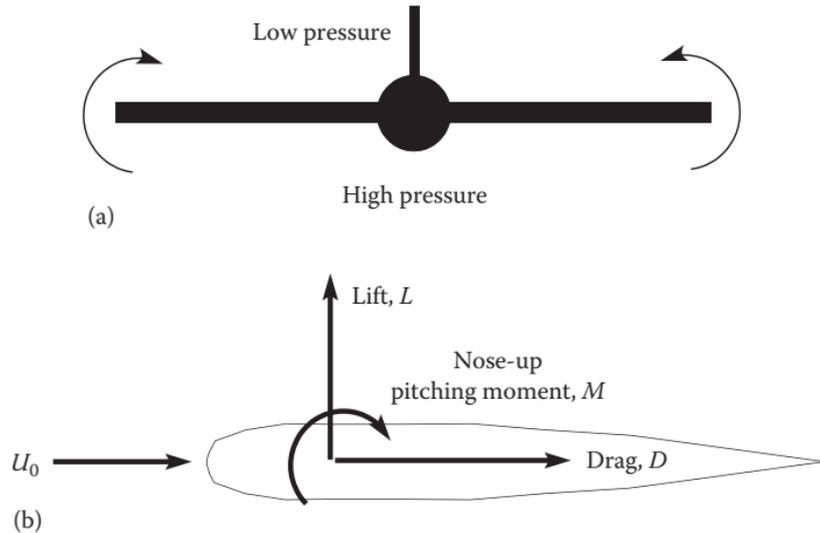


Figure 2.3

(a) The mechanism of wing tip vortex formation and (b) definition of lift force, pitching moment and drag force.

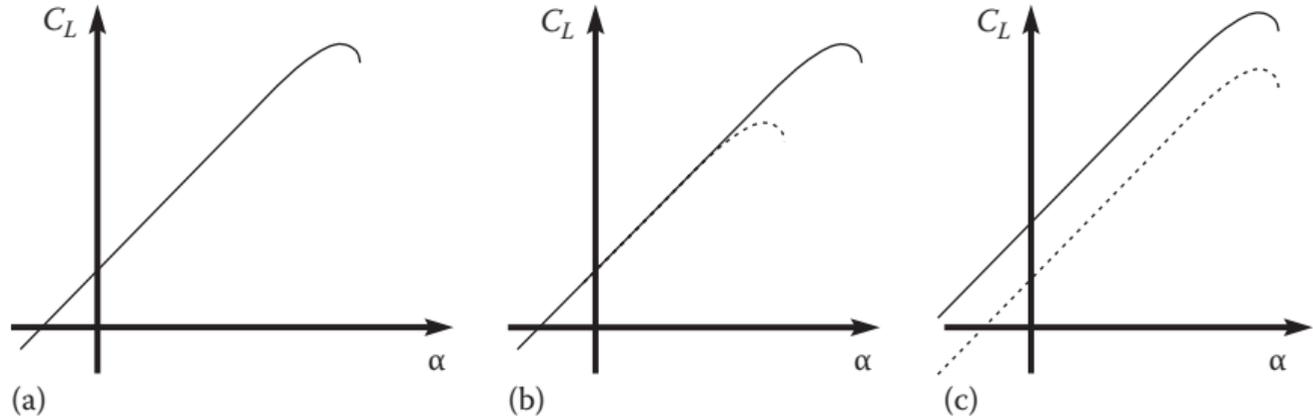


Figure 2.4

(a) Plot of wing lift coefficient versus angle of attack: The effect (b) slots and (c) flaps.

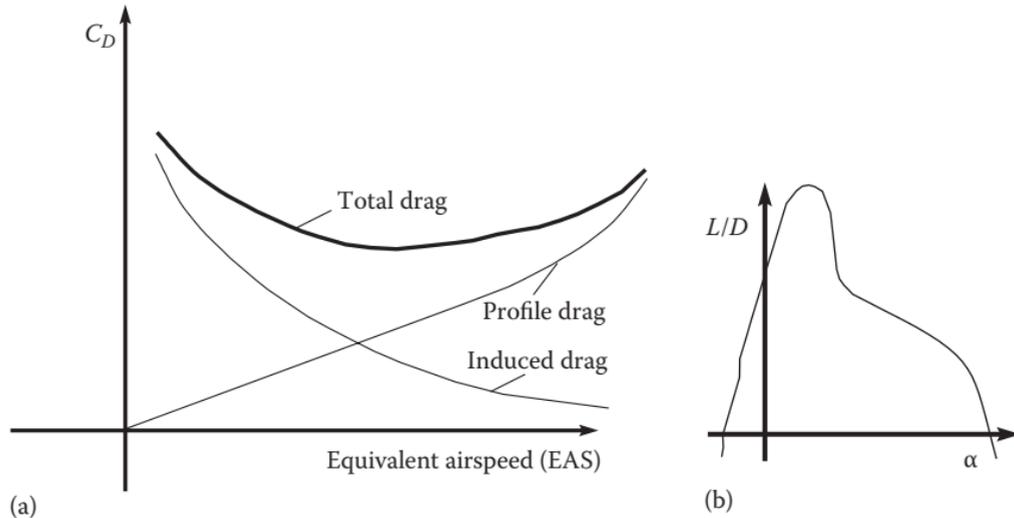


Figure 2.5

(a) Plot of wing drag components versus equivalent (sea level) airspeed and (b) variation of the L/D ratio with the angle of attack.

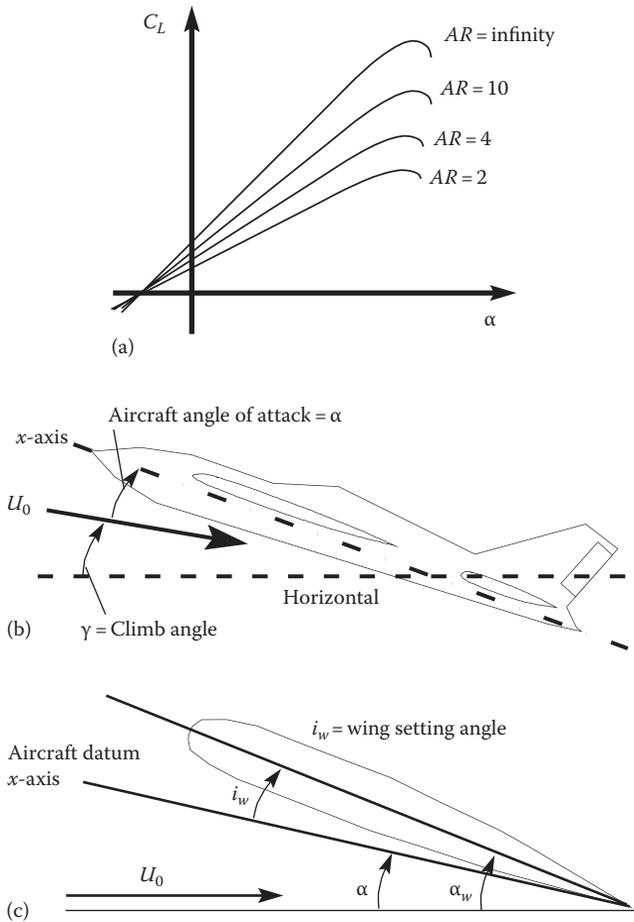


Figure 2.6

(a) Plot of wing lift coefficient, for wings of different aspect ratios versus angle of attack, (b) definition of the aircraft angle of attack and the climb angle and (c) definition of the wing setting angle.

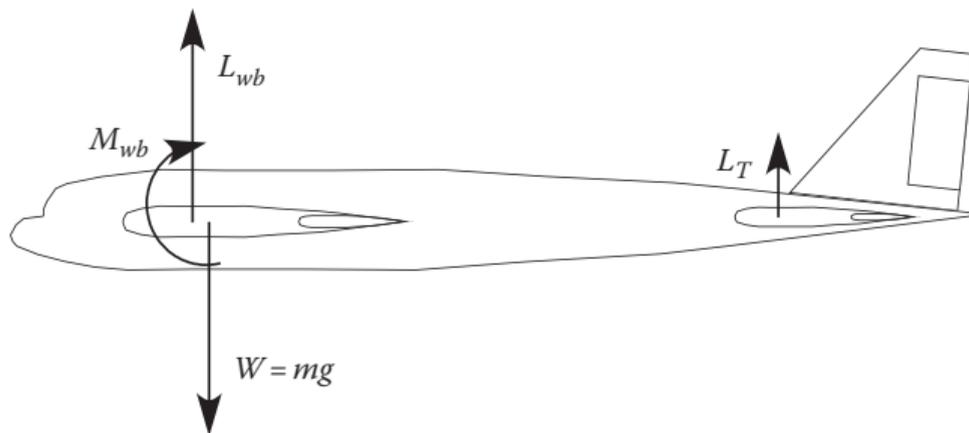


Figure 2.7
Simplified diagram of forces and moments acting on a typical aircraft.