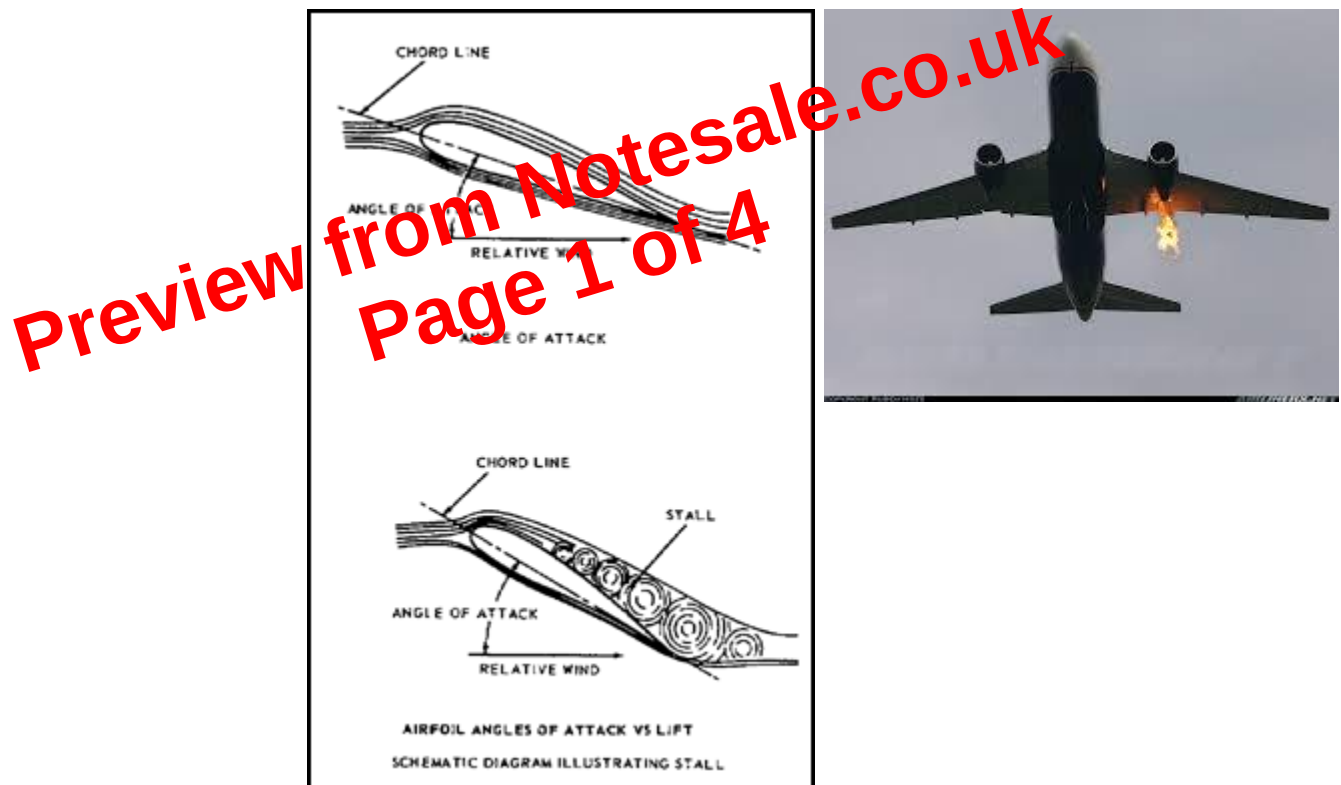


Whenever a diffusing/decelerating flow is found along a physical surface, the possibility exists for the flow to retard so severely that the fluid no longer follows the surface. For example when the air flows over an aero foil with increasing angle of attack there comes a point where the flow on the suction side starts to detach. Streamlines adjacent to wall leave the wall and a reverse flow pockets develop from that point along the surface. Greater the angle of attack, closer the point to detachment comes to the leading edge of the aero foil.



Flow detachment takes the form of small eddies and is also referred to as flow reversal, in literature.

Part of the flow that takes its route from the suction side is accelerated initially, thus giving an effect of decreasing pressure gradient. But, as the flow moves past the thickest part of the aero foil it suffers deceleration and increased pressure gradient is experienced. This localized adverse