

12.4 Lift

Raymer Fig.12.6 shows a value of $C_{L\alpha}$ vs. Mach number for a high aspect ratio wing. Fig. 12.4.1 compares the experimental values of lift curve slope for the DC-9-30, compared with the Prandtl-Glauert correction of $\frac{1}{\sqrt{1-M^2}}$ and DATCOM (Ref. 12.4.1) correction. This figure shows experimental and DATCOM values for the DC-9 that are almost twice the Raymer figure.

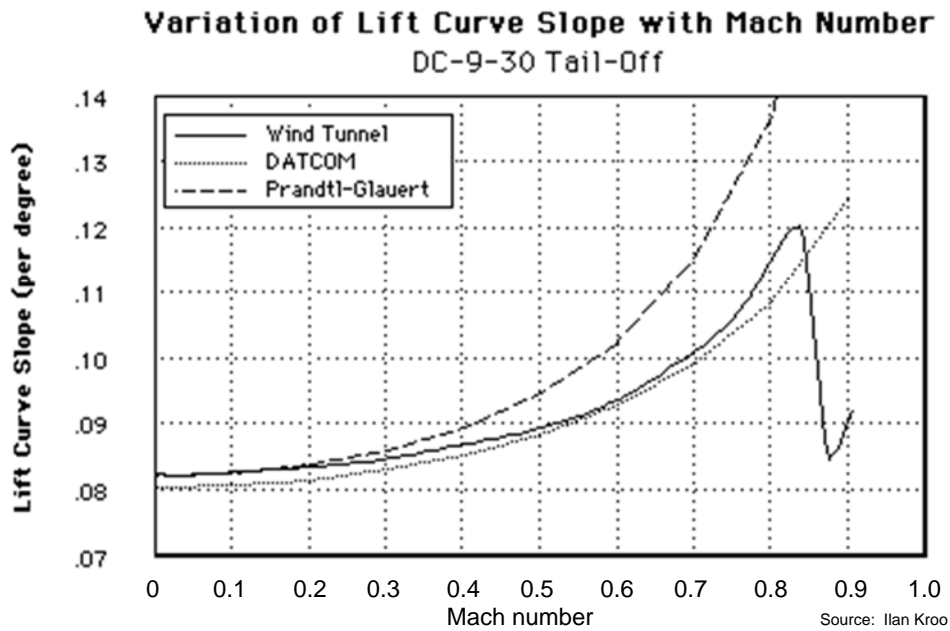


Fig. 12.4.1 Comparison of Calculated and Experimental $C_{L\alpha}$

References

- 12.4.1 Hoak, D.E., "The USAF Stability and Control DATCOM", Air Force Wright Aeronautical Laboratories, TR-83-3048, Oct 1960