$C_{L\alpha,w}$, $C_{L\alpha,t}$ and $C_{L\alpha,c}$

$$a_w = \frac{2\pi A}{2+\sqrt{\frac{A^2\beta^2}{k^2}\left(1+\frac{\tan^2\Lambda_{c/2}}{\beta^2}\right)+4}}\left(\frac{S_{\text{exposed}}}{S_{\text{ref}}}\right)(F)$$

$\beta = \sqrt{1-M^2}$,

$k = a_o/2\pi$.

$\Lambda_{c/2}$ is the midchord sweep.

a_o The sectional (two-dimensional) lift-curve slope a_o

$$a_o = \frac{1.05}{\sqrt{1-M^2}}\left[\frac{a_o}{(a_o)_{\text{theory}}}\right](a_o)_{\text{theory}}$$

$$\tan\frac{\phi'_{TE}}{2} = \frac{0.5y_{90}-0.5y_{99}}{9}$$

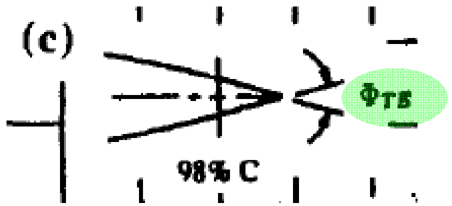
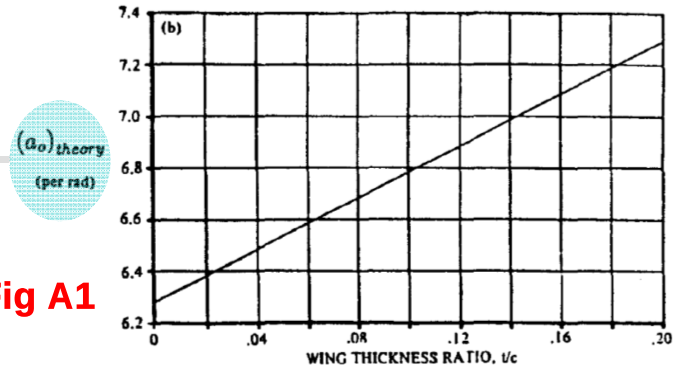
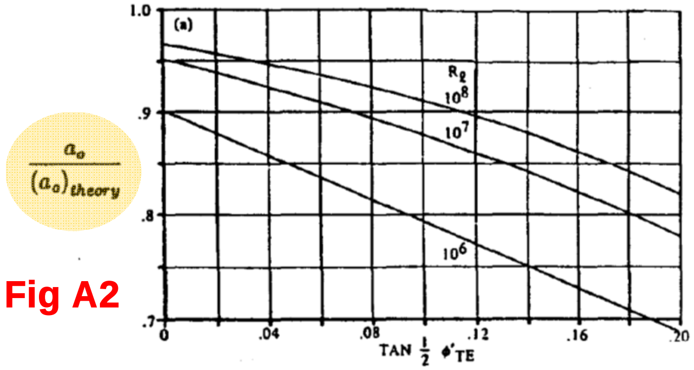


Fig A1



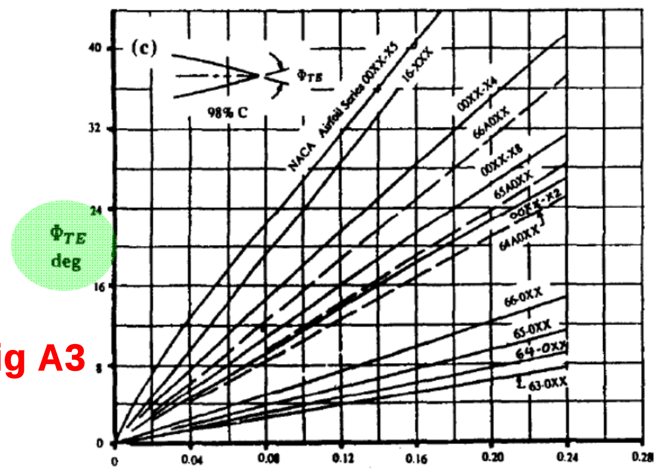
a) Theoretical sectional lift-curve slope

Fig A2



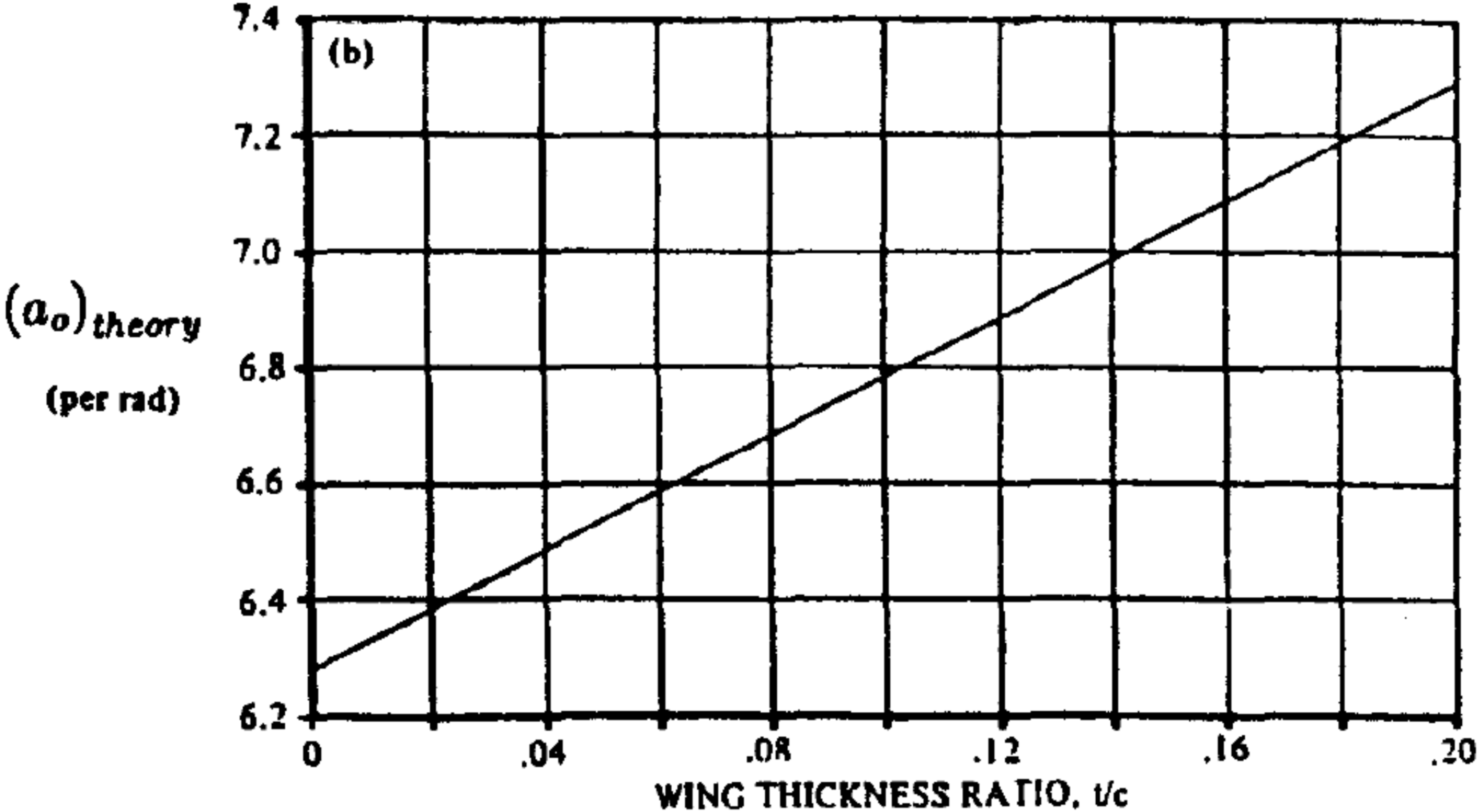
b) Empirical correction factor

Fig A3



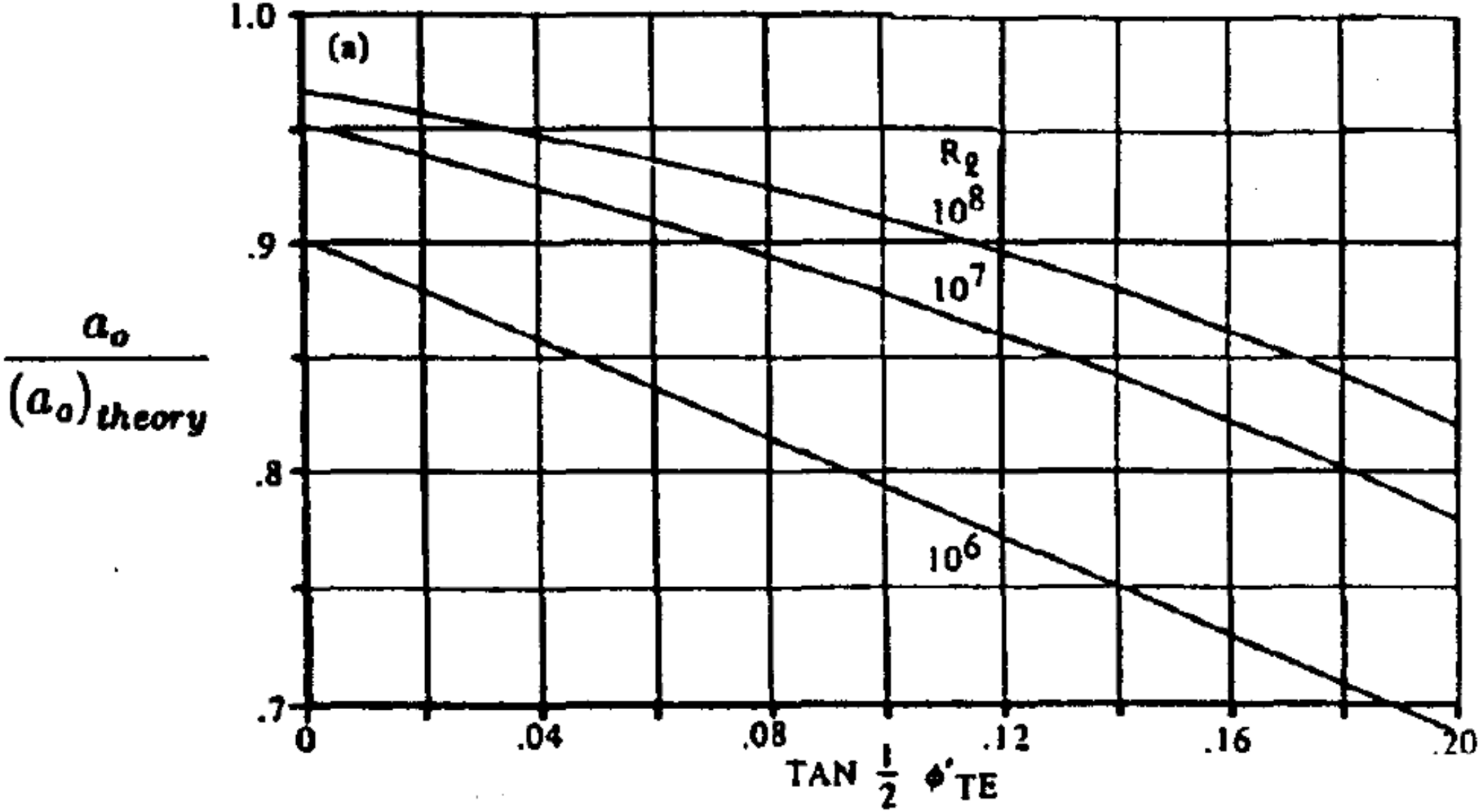
c) Variation of trailing-edge angle ϕ_{TE}

Fig A1



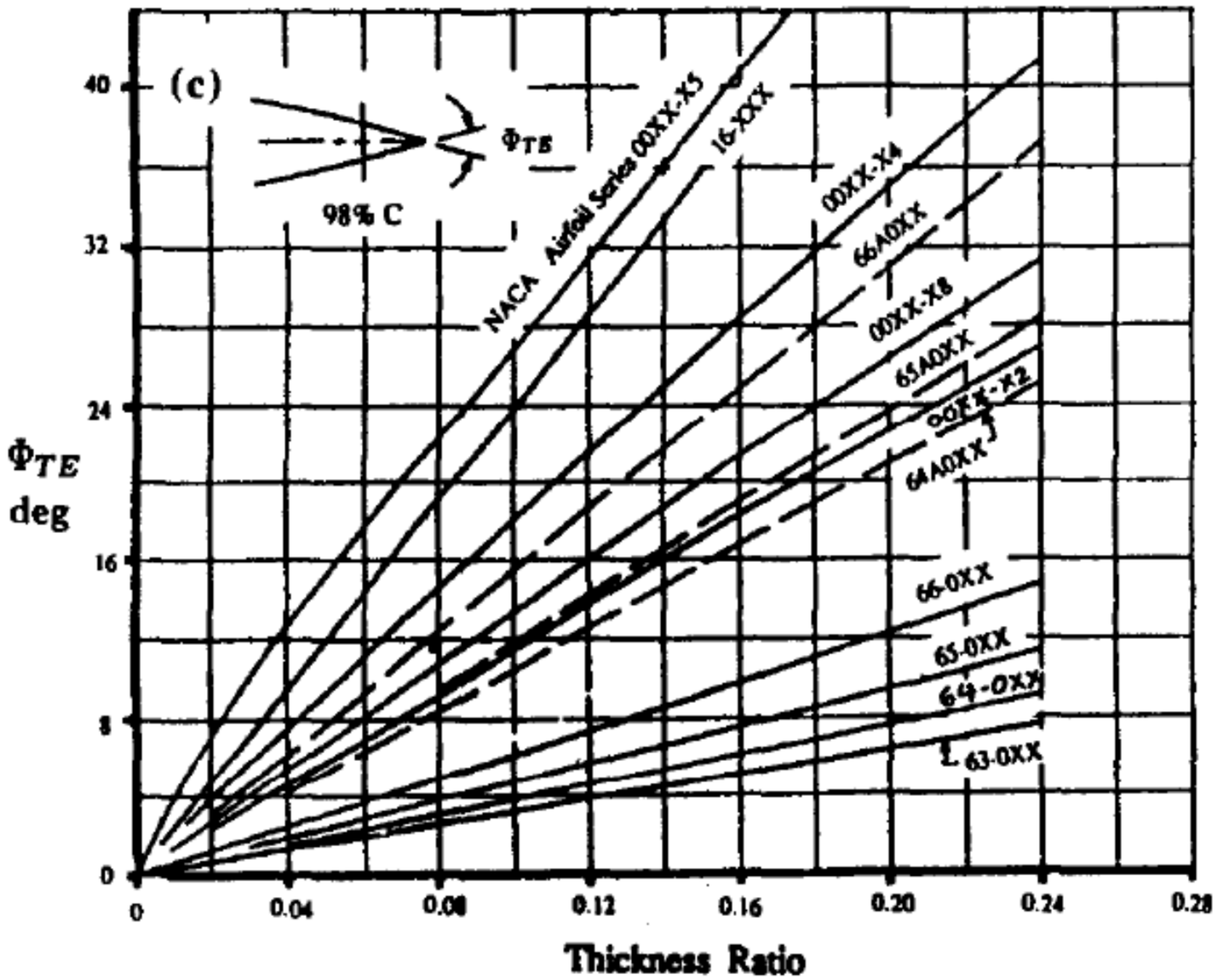
a) Theoretical sectional lift-curve slope

Fig A2



b) Empirical correction factor

Fig A3



c) Variation of trailing-edge angle ϕ_{TE}

Fig. 3.13 Sectional (two-dimensional) lift-curve slope of wings, continued.[1]