ERRATA: Airplane Design Part VI

Year of Print, 2018
(Errata Revised August 9, 2022)

Please check the website www.darcorp.com for updated errata

page 205, Line 9 Should read

' SHP_{av}	285	248	206	172	140
$\left(SHP_{av}\eta_{inl/inc} - P_{extr}\right)$	275	239	198	165	133
P_{av}	242	210	174	145	117'

page 269, Equation (8.37) Should read:

$$\eta_h = 1 - \left[\left\{\cos^2\left(\frac{\pi\, z_{h_{wake}}}{2\,\Delta z_{wake}}\right)\right\}\left\{2.42\sqrt{C_{D_{o_w}}}\right\} \Big/ \frac{x_{h_{wake}}}{\overline{c}} + 0.30\right]$$

page 269, Line 23 Should read

'where: $z_{h_{wake}} = a\sin\left(\gamma_h - \alpha - i_w + \varepsilon_h\right)$ (8.38a)

$$x_{h_{wake}} = a\cos\left(\gamma_h - \alpha - i_w + \varepsilon_h\right) \quad (8.38b)$$

with $a, \gamma_h, \varepsilon_h, i_w$ *and* α shown in Fig. 8.63.'

page 269, Equation (8.39) Should read: $\varepsilon_h = \varepsilon_{h_o} + \left(\frac{d\varepsilon_h}{d\alpha}\right)_{p.off}\alpha$

page 269, Equation (8.40) Should read: $\Delta z_{wake} = 0.68\overline{c}\sqrt{C_{D_{o_w}}\left(\frac{x_{h_{wake}}}{\overline{c}} + 0.15\right)}$

page 398, Equation (10.44) Should read:

$$C_{n_{T_\beta}} = -\underset{i=1}{\overset{i=n}{Sum}}\left[\frac{\left\{\left(\frac{dC_N}{d\alpha}\right)_{p_i}\left(\frac{\pi}{4}\right)\left(D_{p_i}\right)^2\left(l_{p_i}\right)\right\}}{Sb}\right]$$

page 400, Equation (10.45) Should read: $C_{nT_\beta} = -\underset{i=1}{\overset{i=n}{Sum}} \frac{0.035 m_{a_i} l_{n_i}}{Sb\rho U_1}$

page 435, Equation (10.89) Should read: $C_{D_{i_h}} = \frac{2C_{L_o}}{\pi Ae} C_{L_{\alpha_h}} \eta_h \frac{S_h}{S}$

page 435, Line 36 Should read 'where: C_{L_o} is the airplane zero-angle-of-attack lift coefficient follows from Eqn. (10.90).'

page 436, Equation (10.90) Should read:

$$C_{L_o} = C_{L_{o_{wf}}} + C_{L_{\alpha_h}} \eta_h \left(S_h/S\right)\left(-\alpha_{o_{L_h}} - \varepsilon_{o_h}\right) + \\ + C_{L_{\alpha_c}} \eta_c \left(S_c/S\right)\left(-\alpha_{o_{L_c}} - \varepsilon_{o_c}\right)$$

page 436, Line 3-7 Remove Line 3-7

page 439, Equation (10.97) Should read: $C_{D_{i_c}} = \frac{2C_{L_o}}{\pi Ae} C_{L_{\alpha_c}} \eta_c \frac{S_c}{S}$

page 439, Line 5 Should read 'where: C_{L_o} is the airplane zero-angle-of-attack lift coefficient follows from Eqn. (10.98).'

page 439, Equation (10.98) Should read:

$$C_{L_o} = C_{L_{o_{wf}}} + C_{L_{\alpha_h}} \eta_h \left(S_h/S\right)\left(-\alpha_{o_{L_h}} - \varepsilon_{o_h}\right) + \\ + C_{L_{\alpha_c}} \eta_c \left(S_c/S\right)\left(-\alpha_{o_{L_c}} - \varepsilon_{o_c}\right)$$

page 439, Line 8-12 Remove Line 8-12