

**ERRATA: Airplane Flight Dynamics and Automatic Flight Controls Part I**

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(Errata Revised July 16, 2008)

- page 47* First paragraph under 2.5.2 second line. “In variant” should be “invariant”
- page 51* Second paragraph 8<sup>th</sup> line. “top” should be “to”
- page 55, Eq (2.27)* should be 
$$\left(\frac{d\varepsilon}{d\alpha}\right)_M = \frac{\left(\frac{d\varepsilon}{d\alpha}\right)_{M=0}}{\sqrt{(1-M^2)}}$$
- page 84, Eq (3.30)* in  $\cos(\alpha + i_w - \varepsilon)$  “ $i_w$ ” should be “ $i_h$ ”
- page 95* Last full paragraph, 4<sup>th</sup> line. After “vortices” add “(at high angles of attack)”
- page 109, Eq (3.72)* multiply right side quantity by  $\bar{q}Sb$
- page 121, Eq (3.91)* multiply right side quantity by  $\bar{q}Sb$
- page 148, Section 3.2.10* First paragraph “changes in sideslip,  $\beta$ ” should be “changes in sideslip rate,  $\dot{\beta}$ ”
- page 167, Eq (3.214)* Second paragraph “sideslip angle,  $\beta$ ” should be “sideslip rate,  $\dot{\beta}$ ”  
Insert “+ u” in denominator.  
$$F_{T_x} = \frac{n_p 550 \eta_p BHP}{U_1 + u}$$
- page 173* First paragraph, 5<sup>th</sup> line. The word “be” is duplicated and should be deleted
- page 226, Eq (4.90)*  $\psi_1$  should read  $\dot{\psi}_1$
- page 228, Eq (4.100)*  $\delta_{a_1}$  should read  $\delta_{\dot{a}_1}$
- page 233* Third paragraph, 2<sup>nd</sup> line. The word “forward” should be changed to “aft”
- page 244, Section 4.5.1* Last paragraph, change  $\eta_h = \frac{\bar{q}}{\bar{q}_h}$  to  $\eta_h = \frac{\bar{q}_h}{\bar{q}}$
- page 267* Definitions for each variable should be:  $C_{h_{\delta_r}}, C_{h_{\delta_{\dot{r}}}}, C_{h_{\delta_{\dot{p}}}}$  normally negative, negative, positive respectively
- page 268* Include in  $\tau_r$  definition:  $\tau_r = \frac{\partial \beta}{\partial \delta_r}$  and is normally negative
- page 281* Extra period after stick-force trim

*page 291*

*page 332, Eq (5.53)*

*page 333, Eq (5.54)*

*page 333, Eq (5.56)*

*page 340*

List at end of page is inconsistent with Figure 4.49

Last paragraph, 1<sup>st</sup> line. The word “are” should be “area”

the equation should have a minus “ - “ before  $\zeta_{1,2}\omega_{n1,2}$  and  $\zeta_{sp}\omega_{nsp}$

the equation should have a minus “ - “ before  $\zeta_{3,4}\omega_{n3,4}$  and  $\zeta_{ph}\omega_{nph}$

the equation should have a minus “ - “ before  $\zeta_{3,4}\omega_{n3,4}$  and  $\zeta_{3rd}\omega_{n3rd}$

3<sup>rd</sup> line. The word “ration” should be “ratio”