

ERRATA: Airplane Design Part V

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- page 34, Eqn (4.13) $n_{lim_{pos}} \geq 2.1 + 24,000 / (GW + 10,000)$
- page 43, 12th line from top V_A should be 217 kts.
- page 45, 2nd line Change *Selene* to *Ourania*
- page 45, 6th line Change *Selene* to *Eris*
- page 61, under Step 6 $n_{ult} = 7.33$ should read $n_{lim} = 7.33$
- page 71, Eqn (5.12) 57.5 should be 174.04
- page 71, Eqn (5.13) 15.6 should be 639.95
- page 72, 6th line replace 'ib' with 'in'
- page 72, 13th line replace $1/4_v$ by $\Lambda_{1/4_v}$
- page 72 - 74 All comments about the canard weight should reference 5.2.1.1.
- page 74, Eqn (5.19) Replace $1/2_H$ by $\Lambda_{1/2_H}$
- page 74, Eqn (5.20)
$$W_v = K_v S_v \left[3.81 (S_v^{0.2} V_D) / \left(1000 \sqrt{\cos \Lambda_{1/2_v}} \right) - 0.287 \right]$$
Replace $1/2_v$ by $\Lambda_{1/2_v}$
- page 75, Eqn (5.23)
$$W_f = 0.04682 (W_{TO})^{0.692} (P_{max})^{0.374} (l_{f-n})^{0.590}$$
where P_{max} is the maximum fuselage perimeter expressed in feet.
- page 76, Eqn (5.24) N_{pax} is the number of passengers including the pilot.
- page 76, Eqn (5.26) Replace 2 x 10.43 by 10.43
- page 77, Eqn (5.27) l_h = distance from wing root c/4 to horizontal tail root c/4 in ft

page 78, Eqn (5.29)

$W_n = K_n W_{TO}$ should be $W_n = K_n P_{TO}$

page 79, 2nd line

Eliminate and replace by “ P_{TO} = Take-off power in HP”

Eqn (5.32)

$$W_n = 0.045(P_{TO})^{5/4}(N_e)^{-1/4}$$

page 81, Eqn (5.38)

$$W_g = 0.013W_{TO} + 0.362(W_L)^{0.417}(n_{ult,l})^{0.950}(l_{sm})^{0.183} + 6.2 + 0.0013W_{TO} + 0.007157(W_L)^{0.749}(n_{ult,l})(l_{sn})^{0.788}$$

7th line from bottom

Replace $N_{ult,l}$ by $n_{ult,l}$

4th line from bottom

Replace 62.61 by 62.21

page 85

Section 6.1.2, 9th line

Should read: *Equations (6.4) and (6.6) may also be used...*

page 87, Eqn (6.8)

$$W_{ai} + W_p = 1.03(N_e)^{0.3}(P_{TO})^{0.7}$$

page 90, Eqn (6.14)

Method assumes that the number of engines equals the number of propellers

page 92, Eqn (6.23)

$$W_{fs} = 1.6 \left[\frac{W_f}{K_{fsp}} \right]^{0.727}$$

See the associated insert for the comparison of Torenbeek and GD methods.

page 93

Add an increment of 5 to all equation numbers throughout Chapter 6 (i.e., Eqn. (6.22) becomes Eqn. (6.27)).

page 95, Eqn (6.34b)

$$W_{apsi} = 0.4K_b(N_e)^{0.2}(P_{TO})^{0.8}$$

page 98

Add an increment of 1 to all equation numbers throughout Chapter 7.

page 99, Eqn (7.4)

$$W_{fc} = 0.33(W_{TO})^{2/3}$$

page 108,

Eqn (7.44) Remove the (before N_{pax} in the cabin windows weight component.

page 109, Eqn (7.46)

$K_{st} = 0$ for no ejection seat

*page 111,
3rd line of Section 7.12*

Should read: *Part IV, Chapter 3.*