

# *Spacecraft Structures and Mechanisms: From Concept to Launch*

Thomas P. Sarafin, editor

## Errata as of February 25, 1997

The following errata are provided to keep this volume as useful as possible. We would appreciate any other corrections or suggestions being reported to:

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Page	First Printing Errata
41	Fig. 3.3: "1930 in/s" should be "1930 in/ s <sup>2</sup> ."
65	Just above Eq. (3.5): "The <i>heat load</i> , $q, \dots$ ," should be "The <i>incident heat load</i> , $q_I, \dots$ ." Equation (3.5) should then read " $q_I = F_I A$ ." [Note: to obtain the absorbed heat load, $q$ , multiply $q_I$ by the surface absorptivity, $\alpha$ (Chap. 10).]
66	Fig. 3.14: Change the symbol "A" (Albedo flux) to " $F_a$ " for consistency. Similarly, " $A_{max}$ " should be " $F_{amax}$ ".
81	Fig. 4.3a: Reaction $R_y$ should pass through point a
120	Eq. (5.49) applies when the force is applied directly to the mass. For base-driven loading, $H(f) = 1 + \frac{(f/f_n)^2}{[1 - (f/f_n)^2] + j2\zeta(f/f_n)}$
162	Fig. 6.27: " $K \cong 0.0050 \text{ in}$ " should be " $K \cong 0.0050 \text{ in}^4$ "
175	Second equation from the bottom, right-hand integral middle term in numerator: $-2R_b P(x - L/2)$ should read $-2R_b x P(x - L/2)$
180	Fig. 6.39: Top table, farthest right column "10 lb/in" should be "10 <sup>3</sup> lb/in."
212	Eq. (7.72): Units " $\text{lb} \cdot \text{s}^2/\text{in}^2$ " should be " $\text{lb} \cdot \text{s}^2/\text{in}$ ."
220	The lower part of Eq. (7.95) should read $= \frac{ab}{cd\pi^2 \sqrt{M_g}} [(1 - \cos c\pi)(1 - \cos d\pi)]$ The lower part of Eq. (7.96) should read $= \frac{\sqrt{4}ab}{cd\pi^2 \sqrt{M_g}} \left[ \left(1 - \cos \frac{c\pi}{2}\right) \left(1 - \cos \frac{d\pi}{2}\right) \right]$
222	Eq. (7.99) should read $W_z(f) =  H(f) ^2 W_p(f)$ Note that this equation provides the response spectral density in units of $(\text{in}/\text{s}^2)^2/\text{Hz}$ . To get $\text{g}^2/\text{Hz}$ , divide Eq. (7.99) by $(386.1 \text{ in}/\text{s}^2)^2/\text{g}^2$ .
277	First Paragraph: "...stability factor, as discussed in Sec. 6.2, ..." should read "...stability factor, as discussed in Sec. 12.3 ...".
514	The equation used for fundamental frequency, $f_n$ , is in a different form than the one in Table 7.1. Here, $m$ is the total mass whereas in Table 7.1 $m$ is mass per unit length. The equations are equivalent once this distinction is made.
693	Caption to Fig. 19.10: "The kinetic torque equals..." should read "The acceleration torque equals..."
715	First row, first column: "Magnetic Pickup (position)" should read "Magnetic Pickup (position and rate)."
792	Lower note, 1st on left: Fig. B.1 "(see Fig. C.1)" should be "(see Fig. B.3)".