

Space Mission Analysis and Design, 3rd Edition, 2nd Printing
Errata as of December 19, 2008

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	REPORTED ERRATA
Inside Front Cover	1 st Table, 3 rd row, 3 rd column: Permittivity of vacuum value should read $1/\mu_0 c^2 = 8.854\ 187\ 817 \times 10^{-12}$
97	In Fig. 5-1C: Put arrowhead on other end of “Roll Rotation”
101	Table 5-2, 7 th row, 3 rd column: $\text{Arc tan} [\hat{\mathbf{C}} \cdot (\hat{\mathbf{A}} \cdot \hat{\mathbf{B}})] \dots$ should read $\text{Arc tan} [\hat{\mathbf{C}} \cdot (\hat{\mathbf{A}} \times \hat{\mathbf{B}})] \dots$
110	1 st full paragraph: both references to Eq. (5-13b) should be to Eq. (13-c).
110	Eq. (5-15) should read: $F = F_0 (1 - \Phi / 360 \text{ deg})$
110	5 th full paragraph, 9 th line: “If $\Phi > \Phi_{90}$,” should read “If $\Phi / 2 \geq$ the larger $ A_{z_N} \pm \Phi_{90} $,”
112–114	These pages have been revised to improve clarity. The revised pages follow the errata listing.
115	In Fig. 5-15B: The celestial equator is 10 degrees too high.
122	Eq. (5-54), left-hand side: “ $\tan \omega_{inc}$ ” should read “ $\tan w_{inc}$ ”.
122	Eq. (5-55), left-hand side: “ $\tan \omega_{inc}$ ” should read “ $\tan w_{inc}$ ”. Same revision should be made in text reference in preceding paragraph.
140	1 st paragraph, v should equal “1.5708” not “1.57198”
264	Last line, Paragraph above figure: “Table 9-8” should read “Table 9-9”
186	In Table 7-9, last entry, 4th column: Reference should read “Eq. (6-37)” not “Eq. (6-33)”.
289	Table 9-15, Step 6, Rows 2 and 3, “FireSat” column: “Fig. 9-25B” should read “Fig. 9-22”
290	Table 9-15, Step 7, Row 1, “FireSat” column: “ N_e ” should read “ N_e ”
296	Fig. 9-26, wavelength axes unit: “(mm)” should read “(μm)”
327	In Table 10-20 <ul style="list-style-type: none"> • “Reaction Wheels” row, “Weight” column: “$2\ 1\ 0.4 \times H$” should read “$2 + 0.4 \times H$” and “$5\ 1\ 0.1 \times H$” should read “$5 + 0.1 \times H$” • “Control Moment Gyros” row, “Weight” column: “$4\ 1\ 0.03 \times T$” should read “$4 + 0.03 \times H$”
361	4 th paragraph, 8 th line: cross reference should read Sec. 11.1.4 not Sec. 11.5
385	Table 11-19, “Bandwidth” row: “Eq. (13.24)” should read “Eq. (13.26)”
405	Table 11-29, 3 rd row, “Complex” column: “13,000–1,500” should read : “13,000–15,000”
411	3rd paragraph, 3rd line: “(260 kg)” should read “(118 kg)”
412	Table 11-34, 4 th row, “Reference” column: “Table 11-35” should read “Table 11-36”
427	Last paragraph, Last line: “Table 11-40” should read “Table 11-42”
428-458	“Thermal” section rewritten. The revised section is contained in the pages following the errata listing.

480	Eq. (11-52): “ E_t ” should read “ $E\hat{t}$ ”
488	Paragraph above Eq. (11-63), 3 rd line: “ F_{tx} ” should be “ F_{tu} ”
489	Eq. (11-67): “ E_t ” should read “ $E\hat{t}$ ”
514-518	Reference section updated due to “Thermal” section rewrite. The revised reference pages follow the errata listing.
544	3 lines above Fig. 13-4: “. . . $2^2 + 2^1 + 0^0 + 0.5 = 6.5 \text{ V}$. . .” should read “. . . $1 \cdot 2^2 + 1 \cdot 2^2 + 0 \cdot 0^0 + 0.5 = 6.5 \text{ V}$ ”
567	Table 13-13 has been revised. See corrected page appears following the errata listing.
577	In Fig. 13-16: Added axes labels in “Time” and “Frequency” columns. See corrected table that follows the errata listing.
669	Fig. 16-17 has been updated. See updated table in the pages following the errata listing.
790	In 3 rd full paragraph, 2 nd line: “Herzberg” should be “Hertzfeld”
899	In Fig. B-1: second “ ϕ ” from origin should read “ ϕ ”
901	1 st line of text: “ $\phi' = \sin^{-1} Z$ ” should read “ $\phi' = \sin^{-1} (Z / r)$ ”
New Sec. D.2	Sec. D.2, “Thermal Geometry” added to the Appendices. Added section follows the errata listing.
Inside Rear Cover	In “Explanation of Earth Satellite Parameters,” entry for Col. 41: 1 st exponent should not be negative.