

ERRATA

M.J.H. Walker et al.: 'A Set of Modified Equinoctial Orbit Elements'
Celest. Mech. 36 (1985), pp. 409-419.

p. 409 Equations (1)
 Second equation should read:

$$\frac{de}{dt} = \frac{-a(1-e^2)}{\mu e} \frac{\partial \tilde{R}}{\partial \tau} - \frac{1}{e} \sqrt{\frac{1-e^2}{\mu a}} \frac{\partial \tilde{R}}{\partial \omega}$$

Sixth equation was omitted:

$$\frac{d\tau}{dt} = \frac{2a^2}{\mu} \frac{\partial \tilde{R}}{\partial a} + \frac{a(1-e^2)}{\mu e} \frac{\partial \tilde{R}}{\partial e}$$

p. 411 Equation (5) should read:

$$\frac{\partial \tilde{R}}{\partial \alpha_j} \frac{\partial \alpha_j}{\partial \dot{x}_i} = 0$$

p. 412 Equations (7) should read:

$$\frac{dp}{dt} = 2 \sqrt{\frac{p}{\mu}} \frac{\partial \tilde{R}}{\partial \omega}$$

$$\frac{df}{dt} = \frac{-pf}{\mu(f^2+g^2)} \frac{\partial \tilde{R}}{\partial \tau} - \frac{(1-f^2-g^2)f}{(f^2+g^2)\sqrt{\mu p}} \frac{\partial \tilde{R}}{\partial \omega} - \frac{(1-f^2-g^2)g}{\sqrt{\mu p}(f^2+g^2)} \frac{\partial \tilde{R}}{\partial e} - \frac{g \tan i/2}{\sqrt{\mu p}} \frac{\partial \tilde{R}}{\partial i}$$

$$\frac{dg}{dt} = \frac{-pg}{\mu(f^2+g^2)} \frac{\partial \tilde{R}}{\partial \tau} - \frac{(1-f^2-g^2)g}{(f^2+g^2)\sqrt{\mu p}} \frac{\partial \tilde{R}}{\partial \omega} + \frac{(1-f^2-g^2)f}{\sqrt{\mu p}(f^2+g^2)} \frac{\partial \tilde{R}}{\partial e} + \frac{f \tan i/2}{\sqrt{\mu p}} \frac{\partial \tilde{R}}{\partial i}$$

$$\frac{dh}{dt} = \dots$$

$$\frac{dk}{dt} = \dots$$

$$\frac{dL}{dt} = \dots$$

p. 314 Equations (9)
First equation should read:

$$\frac{dp}{dt} = \frac{2pC\sqrt{p}}{w\sqrt{\mu}}$$

Third equation should read:

$$\frac{dg}{dt} = \sqrt{\frac{p}{\mu}} \left\{ -S \cos L + \frac{[(w+1) \sin L + g]C}{w} + \frac{f(h \sin L - k \cos L)N}{w} \right\}$$

p. 414 Equations (11)
Second equation was omitted:

$$\frac{\partial \tilde{R}}{\partial f} = \frac{-\mu \cos L}{wr} \sum_{n=2}^{\infty} (n+1) J_n \left[\frac{R_e}{r} \right]^n P_n(\sin \phi)$$

p. 417 Appendix
Equations should read:

$$\left[\frac{\partial R}{\partial x_i} \right] = MF$$

$$X = [x \quad \dot{x}]^T$$

p. 418
$$Q^{-1} \left[\frac{\partial \tilde{R}}{\partial \alpha_i} \right] = \begin{bmatrix} F \\ 0 \end{bmatrix}$$