

Final Errata to *Radar and Laser Cross Section Engineering*, Second Edition

Location	Reads as:	Should read as:
p. 4, Eq. (1.10)	$f_c = (f_2 - f_1) / 2$	$f_c = (f_2 + f_1) / 2$
p. 6, Ex. 1.1	peak transmitter power = 200 kW, $N_o = k_B T_e B$	peak transmitter power = 500 kW, $N_o = k_B T_s B$
p. 8, Fig. 1.6 label	$\frac{A\tau N_p}{2} \text{sinc}(\dots)$	$\text{sinc}(\dots)$
p. 19, Ex. 1.3, Figs. 1.19 and 1.20	The plots in the figures are for an antenna efficiency of $e = 0.85$ rather than 0.5 as stated in the example. Thus the maximum range shown is 63 km, not 46 km.	
p. 19, Ex. 1.3	Last paragraph, reference to Example 1.2 should reference Example 1.1	
p. 35, top line	...to the horizon in miles...	...to the horizon in standard atmospheric conditions in miles...
p. 47, Fig. 2.6	Magnetic image for PMC: $\rightarrow\rightarrow$	$\leftarrow\leftarrow$ (reverse direction)
p. 52, Eq. (2.41)	$-2e^{jkh}$	$2e^{jkh}$ (omit the leading - sign)
p. 53, Eqs. (2.44)–(2.46)	These three equations should have a - (negative) sign in front of them.	
p. 63, Fig. 2.22	$ E ^2 / E_o ^2$	$ E / E_o $
p. 64, Eq. (2.78)	It should be noted to discard the radial component of \vec{E} .	
p. 68, Fig. 2.27, axes labels	$y(n), x(m)$	$v(n), u(m)$
p. 77, Eq. (2.126)	R	R_s
p. 85, Eq. (2.167)	E_x	E_z
p. 87, Fig. 2.43	MONOSTATIC ANGLE	MONOSTATIC ANGLE FROM NORMAL
p. 90, Prob. 2.5	Plate width is b , length is L	
p. 108, Eq. (3.55) and two places in Eq. (3.57)	$j\eta / k$	$j\eta / k^2$
p. 108, Eq. (3.56) in the integral limits	$(\Delta 2)$	$(\Delta / 2)$
p. 108, Eq. (3.60) in the integral limits	$-L$ to L	$-L / 2$ to $L / 2$
p. 110, Fig. 3.8	Triangles and Pulses should be switched in the legend.	
p. 118, heading	3.6.3 Other Basic Functions	3.6.3 Other Basis Functions
p. 123, Ex. 3.4	... 250 MHz is due to a resonance condition for the wing.	... 270 MHz is due to a resonance condition for the fuselage.
p. 124, Fig. 3.21	Nose on RCS...	Broadside RCS...
p. 130, Fig. 3.23	Remove S label inside of outer termination surface	
p. 130, equation above Eq. (3.121)	$\approx -j \frac{\sigma_f}{\omega}$	$\approx \epsilon_0 - j \frac{\sigma_f}{\omega}$
p. 138, above Ex. 3.7	The right curly bracket should be moved so that $\{\dots / r\} \times (\dots$ The expression inside of the curly brackets is an operator.	
p. 143, Ref. 24	Add: Vol. 1, No. 2, April 1988	

p. 146, Prob. 3.10d	$g = k\hat{r} \bullet \vec{r}'$	$g = \hat{r} \bullet \vec{r}'$
p. 146, Prob. 3.11(b)	\vec{W}_{12} (2 places)	\vec{W}_1 (2 places)
p. 146, Prob. 3.13	edge (14)	edge (24)
p. 183, Eq. (4.143)	$\frac{ \mathcal{F}\{E_s(\omega)\} ^2}{ \mathcal{F}\{E_i(\omega)\} ^2}$	$\frac{ \mathcal{F}\{E_s(t)\} ^2}{ \mathcal{F}\{E_i(t)\} ^2}$
p. 211, Fig. 4.43 The bottom figure is a repeat of the top figure. The correct bottom figure is shown here.		
p. 211, Ex. 4.6	Aircraft dimensions: wingspan \approx length \approx 8 m, $f=300$ MHz, $\phi = 0$ deg.	
p. 124, Eq. (3.93), the last 2 lines	$= \times [\dots] + [\dots]_{\tan}$	$\times \{ [\dots] + [\dots] \}_{\tan}$
p. 236, after Eq. (5.43)	$a(\phi^\pm) = \dots$	$a(\phi^\pm) = \dots$
p. 260, Ex. 6.1	$w = 0.5\lambda, L = 20\lambda$	
p. 262, Eq. (6.13)	$E_{\theta\theta} \cos \theta \text{sinc}(kau)$	$E_{\theta\theta} ab \cos \theta \text{sinc}(kau)$
p. 264, Ex. 6.3, Table 6.1	Units are meters, $f=300$ MHz	
p. 271, Eq. (6.25)	$v^2/4R_a$	$v^2/8R_a$
p. 272, Fig. 6.12	$\Omega=2/\ln(2a\ell)$	$\Omega=2\ln(2\ell/a)$
p. 273, Ex. 6.5	Dimensions should be specified: $d_x = 0.5\lambda, d_y = 0.45\lambda$	
p. 2.75, Fig. 6.18	The angle axis should be from 0 to 180 degrees, not 0 to 90 degrees.	
p. 313, Eq. (6.88)	$\cos^2 \theta$	$\cos \theta$
p. 316, Ex. 6.15	...each tile being 0.5λ square.	...each tile being 0.25λ square.
p. 316, Fig. 6.54	RMS ERROR 45 DEG	RMS ERROR 0.11λ
p. 319, Eq. (6.107)	\mathcal{R}_0 should not include the factor in parentheses, $\left(\frac{k \cos \theta}{2\pi r_0}\right)^2$	
p. 323, Fig. 6.60	Legend: $\delta = 0.1\lambda$	$\delta = 0.05\lambda$
p. 324, Fig. 6.61	Legend: $N_x = 25, \delta = 0.1\lambda$	$N_x = 26, \delta = 0.05\lambda$
p. 327, Ref. 17	Monk	Munk
p. 331, Prob. 6.10	Fig. 6.57	Fig. 6.60
p. 333, Prob. 6.19(f)	Remove “when the terminals are shorted”	

p. 359, 2 nd paragraph	$\delta_\varepsilon = \delta_\mu$	$\tan \delta_\varepsilon = \tan \delta_\mu$
p. 361, Fig. 7.22	Labels d and s in the figure should be interchanged. With reference to text below Eq. (7.40), d = ring spacing.	
p. 366, Ex. 7.9	0.1 mm, $\text{Re}[\mu_r] = 1$	0.1 m, $\text{Re}[\mu_r] = 1.103$
p. 371, 3 rd paragraph	...based the type of target...	...based on the type of target...
p. 387, Ref. 14	AP, No. 4	AP-11, No. 5
p. 393, Prob. 7.21	The PML of Problem...	For the PML of Problem...
p. 406, Eq. (8.5)	$\sqrt{1 + \frac{2d \cos \phi}{R_o}} \approx R_o + d \cos \phi$	$\sqrt{1 + \frac{2d \cos \phi}{R_o}} \approx R_o + d \cos \phi$
p. 415, Eq. (9.5)	$d\Phi$	$d^2\Phi$
p. 429, Fig. 9.22	DIFFUSE, $\sigma_s + \sigma_d$	TOTAL, $\sigma_p + \sigma_d$
p. 431, Eq. (9.54)	\mathcal{R}_d	\mathcal{R}_d^2
p. 433, Fig. 9.26	$\tau_1 \Gamma_2 E_o$	$\tau_1^2 \Gamma_2 E_o$
p. 434, top line	It should be noted that T and R are power coefficients.	
p. 434, Eq. (9.64)	$\frac{ E_T }{ E_0 } = \frac{\tau_1^2 \tau_2^2}{1 + \Gamma_1 \Gamma_2 - 2\Gamma_1 \Gamma_2 \cos \delta}$	$\frac{ E_T ^2}{ E_0 ^2} = \frac{\tau_1^2 \tau_2^2}{1 + \Gamma_1^2 \Gamma_2^2 - 2\Gamma_1 \Gamma_2 \cos \delta}$
p. 434, Eq. (9.65)	$R = \frac{\Gamma_1^2 + \Gamma_2^2 - 2\Gamma_1 \Gamma_2 \cos \delta}{1 + \Gamma_1 \Gamma_2 - 2\Gamma_1 \Gamma_2 \cos \delta}$	$R = \frac{\Gamma_1^2 + \Gamma_2^2 - 2\Gamma_1 \Gamma_2 \cos \delta}{1 + \Gamma_1^2 \Gamma_2^2 - 2\Gamma_1 \Gamma_2 \cos \delta}$
p. 435 Eq. (9.67)	$R = \frac{(\Gamma_1 + \Gamma_2)^2}{(1 + \Gamma_1 \Gamma_2)}$	$R = \frac{(\Gamma_1 + \Gamma_2)^2}{(1 + \Gamma_1 \Gamma_2)^2}$
p. 452, numerator in brackets for $\theta_{B\perp}$	$1 - (\varepsilon_2 \mu_2 / \varepsilon_1 \mu_1)$	$1 - (\varepsilon_2 \mu_1 / \varepsilon_1 \mu_2)$
p. 464, Fig. C.1	“Dimensional” is misspelled in the caption.	
p. 468, change κ to k	$\vec{F} = F_x(\kappa_x, \kappa_y) \hat{x}$	$\vec{F} = F_x(k_x, k_y) \hat{x}$
P 478, 1 st paragraph	<i>Scattering parameters...</i>	The <i>scattering parameters</i> defined in Eq. (6.67)...