Errata

Chapter	Section	Page	Location within page	Correction (Deleted font for deleted text and underlined font for new text)
2	2.2.1	40	Line 7	Eccentricity of a circular orbit is ~~1~~ 0
2	2.2.1.1	49	Line 10	for an eccentricity of 0.1~~o~~ [degree deleted – eccentricity is dimensionless]
2	2.2.1.1	50	Figure 2.10(a)	Delete degree symbol from eccentricity.
2	Revision		Q 2.7	Plot a graph of rate of change of argument of perigee ~~…..~~
3	3.2.1.1	92	Last but one paragraph	Ie(θ)=the wanted ground station antenna gain towards interfering source, Pi =the satellite transmitter output of interfering carrier, Is(φ)=the interfering satellite's antenna gain towards wanted ground station ~~interfering source~~, lp = the path loss of interfering carrier towards wanted ground station
3	3.2.1.1	94	Applies to interference calculation algorithm	See solution 3, chapter 3 for further details and update
3	3.3.1	103	Figure 3.8 caption	Source: Figure 1 of ITU-R, ~~1992-1~~-1992b
3	3.3.1	104	Figure 3.9 caption	Source: Figure 1 of ITU-R, ~~1992-1~~-1992b
3	3.3.1	105	Para 3, line 10	A technique for laboratory simulation of tropospheric scintillation has also been reported by this author (Reference: Simulate tropospheric amplitude scintillation Richharia, M.; Pratt, T. Microwaves & RF (ISSN 0745-2993), vol. 24, April 1985, p. 79-82.
3	3.3.1.1	109	Table 3.2, entry 'Dispersion	~~$1/f^2$~~-replace by $1/f^3$

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			(ps/Hz)'	
3	3.3.1.1	109	Table 3.2, entry 'Scintillation''	~~1/f²~~ replace by $1/f^3$ by
3	3.3.1.1	109	4th-5th line below Table 3.2	and therefore MSS service links use circularly polarized waves,
3	3.3.3.1	111	Equation 3.10	$S_4^{\lambda} = \sigma / \mu$ (Read as: $S_4 = \sigma / \mu$
3	3.3.3.1	111	First line below equation 3.10	where σ denotes ensemble ~~average~~ standard deviation and μ is the mean signal power
3	3.3.3.1	111	Equation 3.11	S_4 ~~$\propto$~~ $\propto \exp(-\beta/W)$
3	References	172	ITU (1992a), ITU-R Rec. 531-2, RPI Series, Geneva	A recent version of this recommendation is available: Rec.531-11, 2012
4	4.2.5	194	Equation 4.6	Equation should read as: $\frac{1}{N}\sum_{n=0}^{N-1} A_n e^{j\Phi_n} e^{j(n\Delta\omega)kT}$ [See position of Φ_n]
6	6.2.1.2	275	2nd line from bottom of the page	… high up link carrier to noise ratio density in presence of non-linearity (see Figure 6.3b, as an example where the ratio is>12).
6	6.2.3	299	Line before equation (6.2)	It can be readily shown that the edge-of-coverage carrier to noise power density ratio (C/N) at the spacecraft from a user transmission via an omni-directional antenna is given as (Egami, 1995)
6	6.2.3	299	Equation (6.2)	For derivation of equation (6.2), please see solutions to chapter 6, revision question 4 in Solutions to revision question of the book [Available on this web site].
7	7.4.2	339	6th line below figure 7.11	Telemetry Tracking and Telecommand
8	8.2.1	359	Para 3, Line 3	global mobile packet radio

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				services (GMPRS)
9	9.4.1.3	447	6th line from the bottom of page.	In such cases, theoretical ~~assumptions~~ values have to be estimated based on heuristics, logic, etc.
9	9.7	464	6th line from the bottom of page.	.. alternative methods within their respective jurisdiction to encourage efficient use of spectrum
11	11.2.1	534	Last entry Table 11.9	Service link ~~L~~ K_a
13	13.3.3.1	634	Last but one line from the bottom of page	… …a signal to travel from the satellite to a receiver and velocity of electromagnetic wave in the intervening medium
14	14.4.3	665	First sentence of sub-section	**Clarification of text:** The **f**requency planning process lays out carrier optimally such that radio link quality remains intact. The process does not include upper layer issues that degrade the quality of service to the end user.