Health Physics in the 21st Century Change List Number 01 Joseph John Bevelacqua January 2009		
Item Number	**Page**	**Change**
1	Page 193	Question 04-09 (c), third line. Change “10 mSv” to “10 mGy”.
2	Page 240	In the line of text following Eq. (5.107), Change: “CW lasers.” to “CW lasers. Rule 3 does not apply to skin exposures.”
3	Page 333	Section 7.13, 1st paragraph, line 3: Change: “perspective of the spacecraft crew” to “perspective of the Earth”
4	Page 333	Section 7.13, last line of text above Table 7.8: Change: “the elapsed time” to “the relative elapsed time”
5	Page 333.	Table 7.8: Replace the existing Table 7.8 with the table in the following full cell. I inadvertently exchanged a column in the original table that led to the changes needed for pages 333 and 334.

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Replacement Table 7.8:

Table 7.8

Times for round-trip travel to Alpha Centauri

Spacecraft velocity (*v/c*)	t_{Earth} (yr)	$t_{Spacecraft}$ (yr)
0.1	86	85.6
0.2	43	42.1
0.3	28.7	27.4
0.4	21.5	19.7
0.5	17.2	14.9
0.6	14.3	11.4
0.7	12.3	8.78
0.8	10.8	6.48
0.9	9.6	4.18
0.95	9.1	2.84
0.99	8.7	1.23
0.999	8.6	0.385
0.9999	8.6	0.122

6	Page 334	Page 334, Section 7.13, 1st paragraph, 1st complete sentence: Change: "For example at 0.99 c, the crew observes that 9 years have passed, but on Earth almost 62 years will elapse." to "For example at 0.9999 c, the crew observes that about 1.5 months have passed, but on Earth almost 9 years will elapse."

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Item Number	**Page**	**Change**
7	Page 334	Page 334, Section 7.13, last paragraph, 2nd and 3rd sentences: Change: "For example, consider a mission to Alpha Centauri for a spacecraft that travels at 0.9999 c. The crew would age 8.6 years, but they would return to an Earth that aged 600 years and advanced significantly." to "For example, consider a 600 LY mission for a spacecraft that travels at 0.9999 c. The crew would age 8.5 years, but they would return to an Earth that aged 600 years and advanced significantly."
8	Page 346	Problem 07-08, Table Header: Change: "Propulsion system-1" to "Propulsion system-1:"
9	Page 346	Problem 07-08, Table Header: Change: "Propulsion system-2" to "Propulsion system-2:"
10	Page 456	In the 1887 line, change: "either" to "ether"
11	Page 473	Change: "E_0 Rest mass" to "E_o Rest energy"

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Item Number	**Page**	**Change**
12	Page 473	In the notation list, add: C_L Activity per unit length after C_a Activity per unit area
13	Page 476	In the last equation (Dose – Line Source Equation), change: "A" to "C_L"
14	Page 478	Change the second line from: "Charge: 1 C = 1 A/s" to "Charge: 1 C = 1 A-s"
15	Page 557	Under "k", change: "Kardashev civilization type scale 460" to "Kardashev civilization type scale 326, 460"
16	Page 559	Under "p", change: "pioneer 322, 339" to "Pioneer/Pioneer anomaly XIX, 322, 339, "