

Errata and Corrigenda for “A physicists guide to The Los Alamos Primer”

Physica Scripta **91**(11) 113002 (2016)

<http://iopscience.iop.org/article/10.1088/0031-8949/91/11/113002>

- Page 2 Right column. In the definition of ω , the “y” has been dropped from the word “energy”
- Pages 6-7 In the list of sections and subsections (bottom of page 6-top of page 7), the Roman numerals of the main section titles (Preliminaries; Neutrons and the fission process; Critical mass and efficiency; Detonation, pre-detonation, and fizzles; Conclusion) should be I – V, respectively. Also, the subsections should be numbered consecutively from 1 (Object) through 22 (Conclusion).
- Page 15 I am grateful to John Coster-Mullen for pointing out some errors regarding the Little Boy and Fat Man tampers. Little Boy used a Tungsten-Carbide tamper that was 13.125 inches in diameter in three 6-inch thick sections for a total length of 18 inches, mostly contained within a K-46 nickel-iron alloy liner sleeve. The sleeve is item G in Figure 7.18 on page 302 in my book *The History and Science of the Manhattan Project*; the tungsten-carbide tamper is items E, F, and V in the same diagram. Fat Man [Fig. 7.2, p. 310] used a 8.75-inch diameter U-238 tamper. Surrounding this was an Aluminum pusher sphere, which served not as a tamper but rather as a layer to overcome the Raleigh-Taylor Effect, which is discussed on p. 311 of the above-cited book. The Little Boy and Fat Man diagrams also appear as Figures 2.9 (p. 72) and 4.5 (p. 133) of my *The Physics of the Manhattan Project* (3rd edition).
- Page 20 Right column, fifth line following eq. (73). Part of an expression was dropped. This should read “ ... reached at $t \sim 29(\tau/v')$.”
- Page 24 John Coster-Mullen points out that a recent estimate of the Little Boy indicates a yield of 16 kilotons. This estimate comes from a reassessment of Hiroshima and Nagasaki radiation dosimetry prepared by the Radiation Effects Research Foundation (2002). See these links:
- <http://www.rerf.jp/shared/ds02/index.html>
- <http://www.rerf.or.jp/shared/ds02/pdf/chapter01/cha01-p42-61.pdf>
- Page 29 Footnote 5: This should refer to Ref. [20], not [22].