

## ERRATA AND ADDITIONS FOR "Noise Control: from Concept to Application"

November 4, 2020

- p8, line above Example 1.2 title, change "Appendix B" to "Appendix A"
- p13, 2 lines under Equation (1.4), change "Equation (1.11)" to "Equation (1.4)"
- p16, Eq 1.20 should not have the  $\pm$  symbol on the RHS
- p19, 3 lines from the bottom of the page, the equation should be:
- $$p_1 = A_1 e^{j\omega t} \text{ and } p_2 = A_2 e^{j(\omega t + \beta)}$$
- p31, Change figure number from 1.6 to 1.4
- p37, Delete last paragraph and change figure references from 1.6 to 1.5
- p38, Change figure number from 1.7 to 1.5
- p41, Section 1.11.1, references to Figure 1.6 should be to Figure 1.8
- p42, references to Figure 1.7 should be to Figure 1.9
- p43, Change figure number from 1.8 to 1.6
- p44, Change figure number from 1.9 to 1.7
- p47, Change figure number from 1.10 to 1.8
- p59, Table 1.3, line 3, replace " $U$ " with " $u$ "
- p59, Table 1.3, line 5, replace " $Z_d$ " with " $Z_A$ "
- p60, Heading 1.13.2, replace " $Z$ " with " $Z_s$ "
- p70, The number "3" and "0.3" should be replaced by "3.01" and "0.301" respectively in Equation (2.22) and Equation (2.23) respectively
- p127, 4 lines above Section 3.7, replace "7" with "-7"
- p131, First line under Example 3.4, change "sound power" to "sound power level"
- p156, Add "(dB)" after the title of the vertical axis in Figure 4.2
- p160, Paragraph beginning "Note that ISO" only applies to overall A-Weighted calculations and should be deleted here. The paragraph following this one should also be deleted as the meteorological effects should not be taken into account in two separate places -

either they should be included in the barrier calculations or calculated separately but not both.

p163, Interchange the 63 Hz and 2000 Hz labels on the curves in Fig. 4.5

p166, 3<sup>rd</sup> line under section 4.2.10.4, after the word "zones", change the comma to :

p168, Eq. 4.27, change "-0.09" to "-0.9"

p176, Table 4.8,  $-3.0 < v < +0.5$  should be replaced with  $-3.0 < v < -0.5$

p181, ISO 9613-2 procedures for calculating ground effects and shielding effects are based on an assumption of downwind propagation from the sound source to the receiver. Thus the only correction term (Equation (5.193)) that is offered by ISO for meteorological effects is a term to reduce the A-weighted calculated sound pressure level for long time averages of several months to a year. Thus section 4.2.11.4 should be deleted and replaced with the paragraph above.

p194, Solution should be (a) and (b), not (c) and (d)

p202, Eq. (4.53), replace  $\frac{0.16V}{S}$  with  $\frac{0.16V}{S^2}$

p214, 2 lines above Eq. 5.18, change  $\theta$  to  $\beta$

p216, In Equation (5.28), replace  $\theta$  with  $\beta$  in three places, replace  $\beta$  with  $\psi$  in one place and in the new expression for  $\beta$ , change the minus sign to a plus sign.

p216, In Equation (5.30) change  $\beta$  to  $\psi$

p217, In Equation (5.34) change  $\beta$  to  $\psi$  in all places

p230, last line, replace 20 mm with 20  $\mu\text{m}$

p248, 2 lines under Equation (6.3), replace "Equation (1.1)" with "Equation (6.5)"

p252, 2 lines above Equation (6.10), change (4.43) to (4.44)

p257, second line of figure 6.5 caption, change  $mh$  to  $m/h$  and note that here  $\rho$  is the density of the panel whereas in Equations (6.18) and (6.20), it is the density of the medium in which the panel is mounted.

p257, In the figure caption, change "Appendix B" to "Appendix A".

p353, In part (b) of the figure caption, replace the sentence beginning with "For a well damped panel", with the following, "For a well damped panel, see the discussion in the last paragraph preceding Example 6.1 on page 258."

p265, change x-axis label to "frequency (Hz) (log scale)"

- p265, on the x-axis of the figure, change " $0.5 f_{c2}$ " to " $0.5 f_{c1}$ "
- p265, Under "Point B", item (a), replace " $30\log_{10} f_{c2}$ " with " $20\log_{10} f_{c1} + 10\log_{10} f_{c2}$ "
- p265, Under "Point B", items (b) and (c), replace " $40\log_{10} f_{c2}$ " with " $20\log_{10} f_{c1} + 20\log_{10} f_{c2}$ "
- p265, Eq (a) under "Point C", add the term, " $20 \log_{10} (f_{c2} / f_{c1})$ " to the RHS of the equation
- p265, change figure number from 6.7 to 6.6 in the caption
- p266, 3 lines from the top of the page, change "77" to "78" and "61" to "60" in 2 places
- p266, 6 lines from the top of the page, change "61" to "60" and "52" to "51"
- p267, Delete parts (c) and (d) of Example 6.5 and the corresponding solutions on the following pages.
- p273, Section 6.2.4.2, 5 lines down, replace the sentence beginning with "Alternatively" with the following: "This mechanism can be considered to approximately double the loss factor of the base panels. Alternatively, the panels could be connected together with a layer of visco-elastic material to give a loss factor of about 0.2."
- p273, Section 6.2.4.2, 9 lines down, after the words "(0.3 to 0.6 m)", add the words, "or connected with a layer of visco-elastic material or even nailed together"
- p284, 2<sup>nd</sup> equation, "30.5/30" should be "30.5/31"
- p284, Change figure number in figure caption from 6.12 to 6.7
- p295, Change figure number in figure caption from 6.14 to 6.8
- p296, Change figure number in figure caption from 6.15 to 6.9
- p297, Change figure number in figure caption from 6.16 to 6.10
- p299, Change figure number in figure caption from 6.17 to 6.11
- p312, Change figure number in figure caption from 6.21 to 6.12
- p314, Change figure number in figure caption from 6.22 to 6.13
- p389, In the figure, the symbol,  $S$  on the x-axis should be  $A$
- p297, At the end of the first paragraph, add "When paths involving the ground reflected wave on the source side are considered, the straight line distance,  $d$ , used in Equation (6.34) is the distance between the image source and the receiver. The same reasoning applies to paths involving ground reflections on the receiver side."

p312, last line, "Figure 6.9" should be "Figure 6.15"

p313, Eq. (6.48) should be:

$$N = \pm \frac{2}{\lambda} \left\{ \left[ \left[ \left( X_S^2 + (h_b - Z_S)^2 \right)^{1/2} + \left( X_R^2 + (h_b - Z_R)^2 \right)^{1/2} + b \right]^2 + Y^2 \right]^{1/2} - d \right\}$$

p400, 3<sup>rd</sup> line in part (d), replace "Equations (4.43) and (1.52)" with "Equations (4.44) and (1.53)"

p401, Figure 7.18, caption, replace "D" with "d"

p402, In Eqs. (7.69), (7.70) and (7.71), replace "D" with "d"

p402, 2 lines below Eq. 7.71, replace "D" with "d"

p405, line in table for lead, loss factor = 0.015

p405, line in table for concrete, loss factor = 0.005 - 0.02