numbers and d/b[1] with agreement within ±15% in all cases. All of the wing-body configurations considered in this study were uncambered and untwisted and had the body extended sufficiently past the trailing edge of the wing so that the Mach lines from the wing root covered the afterbody (i.e., lift carryover was present).

Equation (1) and Fig. 2 can be used to rapidly determine the wing-body lift curve slope, $(C_L)_{WB}$. The methods, in three Mach regimes, are as follows:

Subsonic: Determine the wing C_L using the expression[3]

$$(C_{L_\alpha})_W = \frac{2\pi A}{2 + [4 + A^2\beta^2(1 + \tan^2\Delta/\beta^2)]^{1/2}} \qquad (3)$$

where A = aspect ratio, $\beta = (|1 - M^2|)^{1/2}$, Δ = sweep of the maximum thickness line. Then, determine F from Fig. 2 for the d/b and Mach number of interest. The wing-body C_L based upon the exposed wing planform area S_e is then given by Eq. (1).

Transonic: Determine the wing C_L using the method suggested by Spreiter.[4] Then determine F from Fig. 2 and use Eq. (1) for $(C_L)_{WB}$.

Supersonic: For $M \geq 1.4$, determine the wing C_L using supersonic thin airfoil theory and finite wing theory such as is shown on the charts of Fig. 3 (Refs. 5-9). Then determine F from Fig. 2 for the d/b and Mach number of interest and calculate $(C_L)_{WB}$ using Eq. (1). This supersonic method is restricted to wing-body configurations where lift carryover is present.

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Erratum

"Simplification of the Wing-Body Interference Problem"

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EQUATION (3) in the preceding Engineering Note should have read as follows:

$$K_{B(W)} = [(1 - \frac{r^2}{s^2})^2 - \frac{2}{\pi}\{(1 + \frac{r^4}{s^4})[\frac{1}{2}\tan^{-1}\frac{1}{2}(\frac{s}{r} - \frac{r}{s}) + \frac{\pi}{4}]$$

$$- \frac{r^2}{s^2}[(\frac{s}{r} - \frac{r}{s}) + 2\tan^{-1}\frac{r}{s}]\}]/(1 - \frac{r}{s})^2 \qquad (3)$$

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