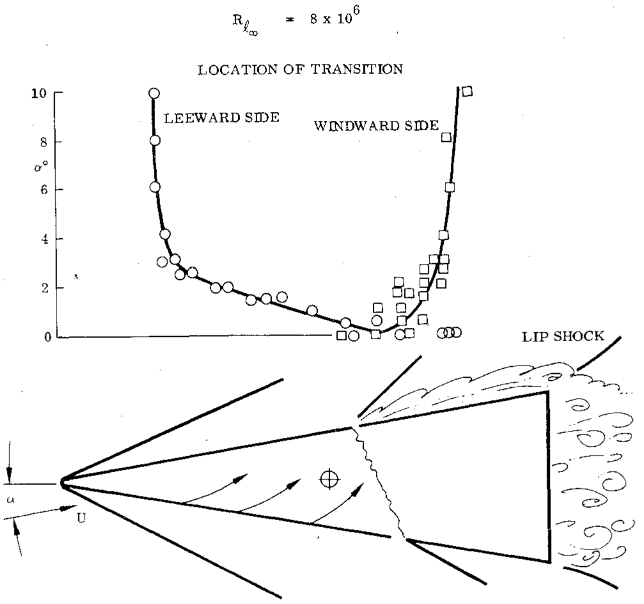

Fig. 3 Effect of angle of attack on boundary-layer transition on a 10° sharp cone at $M_\infty = 6$.

leeward side boundary-layer transition on a sharp 10° cone moves half a body length forward (of the windward and meridian side transition fronts). (See Fig. 3.) On a 5° cone, this large movement would occur already at $\alpha = 1°$, as α/Θ_c is the relevant crossflow parameter,[5] and at a mere $\alpha = 0.5°$ if the conic frustrum has a moderate amount of boundary-layer mass addition (through ablation, for example). On an ogive-cylinder, the typical missile body, the required crossflow angle is likely to be even less. A sudden change of separated flow pattern usually causes highly nonlinear (often discontinuous) changes of the aerodynamic characteristics, with accompanying extremely large effects on elastic and rigid body dynamics.[10-12] Thus, much analytic and experimental work is needed before one can design a finned missile that will work successfully at high supersonic and hypersonic speeds.

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Errata

Hemisphere-Cylinder in Transonic Flow, $M_\infty = 0.7 \simeq 1.0$

Tsuying Hsieh
Arnold Engineering Development Center, Arnold Air Force Station, Tenn.

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ON page 1412, the first line of Eq. (1) should read:

$$\left(1-\frac{u^2}{a^2}\right)\frac{1}{\kappa}\frac{\partial}{\partial s}\left(\frac{1}{\kappa}\frac{\partial\phi}{\partial s}\right)$$

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Radiation from an Array of Longitudinal Fins of Triangular Profiles

N. M. Schnurr
Vanderbilt University, Nashville, Tenn.

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THE abscissa for Fig. 4 and 5 must be corrected by multiplying the values of N_C by $(1/N_L)^2$. For example if $\epsilon = 1.0$, $N_f = 4$, $N_L = 8$ and $Q^* = 4.0$, the corresponding value of N_C from Fig. 5 is approximately 1.5. This should be changed to $N_C = 1.5\,(1/8)^2 = .0234$.

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