There are other ways to show how the value chosen for A affects the Mode-5 impact density function. For five values of A, the plots in Figure 33 show the percentages* of Atlas IIAS impacts that lie between the flight line and any radial line through the launch point that makes an angle θ with respect to the flight line. If A = 3.0, it can be seen that approximately 46% of all Mode-5 impacts lie between 0° and 20°. If A is 4.0, the percentage of impacts between 0° and 20° increases to about 64%.

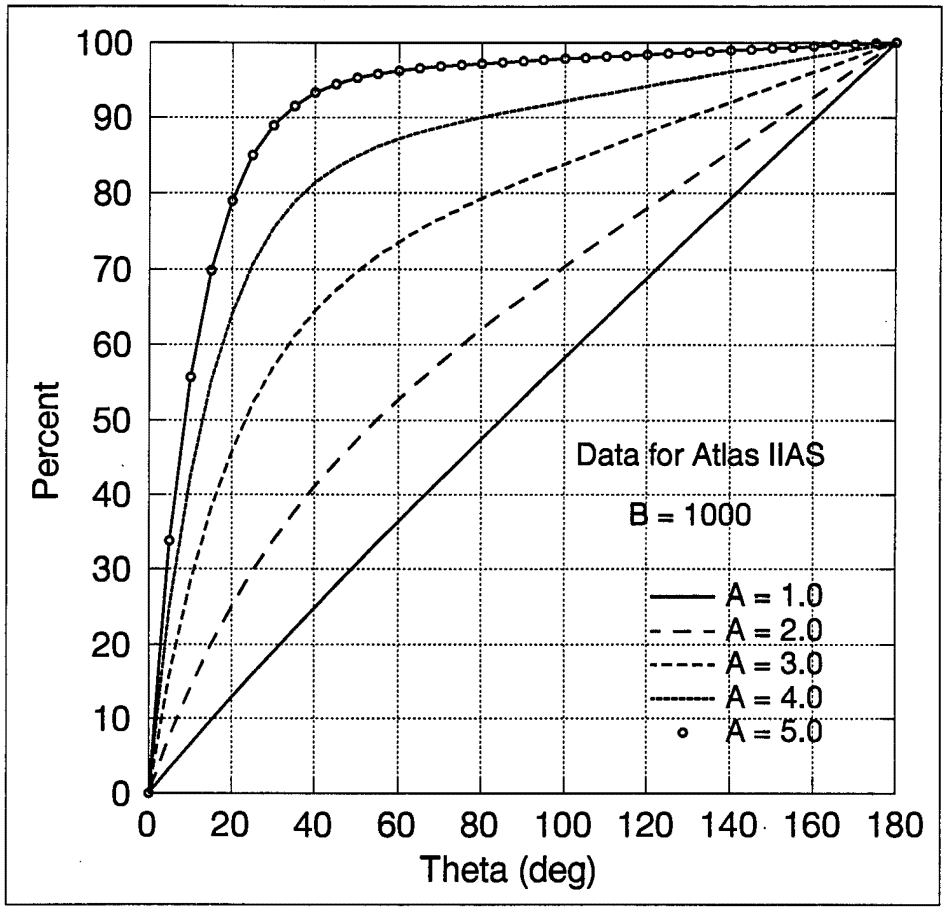

Figure 33. Percentage of Impacts Between Flight Line and Any Radial

* The Mode-5 impact density function must be integrated numerically to arrive at the values plotted in Figure 33. Since the quantity $\dot{R}$ that appears in the density function is trajectory dependent, somewhat different curves would be obtained for other trajectories and vehicles.