the differences in calculated Mode-5 risks for the different values of B would surely have been less.

Further understanding of why small differences in E_c exist can be gained by plotting values of the Mode-5 density function computed from Eq. (3) This has been done in Figure 15 for a range of three miles using values of A and B from Table 21 for $q\alpha = 5{,}000$ deg-lb/ft^2. Since Eq. (3) does not include a factor to account for the probability of a Mode-5 failure, the values plotted in the figure are conditional impact probabilities per square mile. For the sector from 120° to 180°, which is where most population centers are located, the density-function value for B = 5,000,000 is largest and for B = 1,000 is smallest. Results consistent with this are shown in Table 21, where the largest and smallest E_c's are for B = 5,000,000 and B = 1,000, respectively.

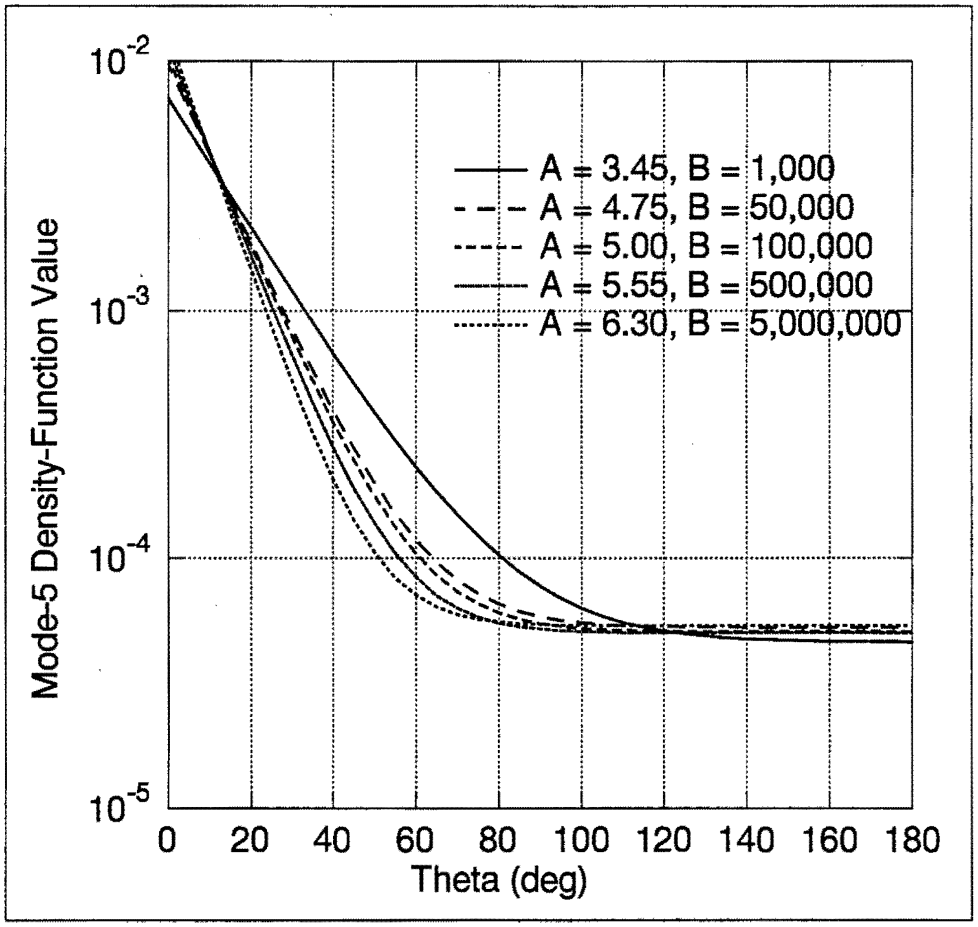

Figure 15. Mode-5 Density-Function Values at Three Miles

6.2.3 Effects of Mode-5 Constants on Ship-Hit Contours

In the preceding section, certain values were assigned to B and, by trial and error, best-fit values of A were found. For every breakup $q\alpha$ and every B, it was possible to find a value of A that produced good agreement between theoretical and simulated impact data over 5° sectors from ±100° to ±180° (see Figure 10 through Figure 13). In some