

Table 1. Effects of Mode-5 Shaping Constant A on Atlas IIA Risks

B = 1,000 Constant A	Percent of Mode-5 IPs Uprange	Casualty Expectancy ($\times 10^6$) inside ILLs	
		Mode 5	Total for all Modes
2.5	28.6	246	259.9
3.0	20.7	136	149.4
3.5	14.6	58.9	72.7
4.0	10.0	30.5	44.3

The results in the third column are directly proportional to the probability that a Mode-5 failure occurs. For the Atlas IIA analysis, a value of $1/200 = 0.005$ was assumed.

Case 2: Risk Contours for Atlas IIAS

Definitions of *Flight Hazard Area* and *Flight Caution Area* may be based on the risk contours for inner-ear injury. Constant A can have a significant effect on the location of the 10^6 contour, as illustrated in Figure 2 and Figure 3 for the Atlas IIAS. For these figures, the Mode-5 absolute probability of occurrence was 0.005, constant A was 3.0 and 3.5, and constant B was 1000.