

### 6.3.1 Optimum Mode-5 Shaping Constants

The percentage of Delta vehicles that break up during simulated random-attitude turns are plotted against failure time in Figure 23. The same breakup  $q\alpha$ 's used in the Atlas IIAS calculations were used here. It can be seen from the figure that over 50% of the vehicles break up, either immediately or eventually, if a turn begins between about 10 and 115 seconds.

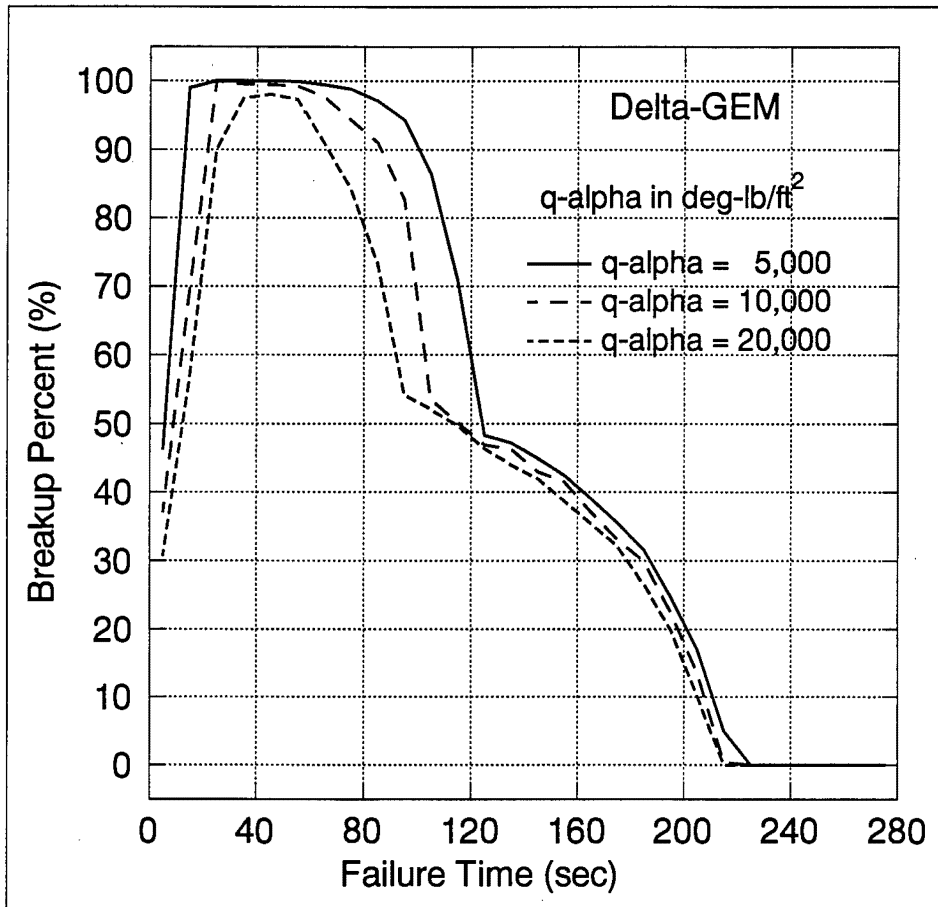


Figure 23. Delta-GEM Breakup Percentages