responses begin at vehicle pitch-over or programming for vertically-launched missiles, and at liftoff for those not launched vertically.

Mode 6: Unlike impacts from response Modes 1 through 5, Mode-6 impacts result from normal flights and normal impacts of separated stages and components. Jettisoned components are assumed to be non-explosive. For each impacting stage or component, a mean point of impact and bivariate-normal impact dispersions in downrange and crossrange components are assumed. The impact dispersions include the effects of variations in vehicle performance, drag uncertainties, and winds.

Of the five failure-response modes, only Mode 5 is modeled to allow for the possibility of failure of the flight termination system, since vehicles experiencing other failure responses tend to impact within the impact limit lines. In DAMP, risk computations for Modes 2 through 4 are based on the assumption that the flight termination system is successfully employed when required. Failure responses originally classified as Mode 2, 3, or 4 may be reclassified as Mode 5 if the flight termination system fails or subsequent vehicle performance does not conform with the original response-mode definition. Risks associated with vehicle failure responses accompanied by a failure of the flight termination system are assumed to be adequately modeled in DAMP by Mode 5.

The five failure-response modes modeled in DAMP are sufficient to account for all anomalous impacts in the estimation of risks. However, some vehicle failures and anomalous behaviors have an effect on mission success without increasing risks to people and property on the ground. These behaviors have been assigned **Mode NA** (not applicable) in the response-mode column of the launch-history tables in Appendix D.