D.1.4 Representative Configurations

The last column in the tables in Appendix D indicates whether the vehicle configuration is considered sufficiently similar to current and future vehicles for the test result to be included in the representative data sample used to predict absolute reliability. A "1" in the column indicates that the test result is included, while a "0" indicates that it is excluded. There are likely to be differences of opinion about which past configurations are representative and which are not. In determining which to include, RTI has relied entirely on the Booz•Allen & Hamilton report[4] referred to earlier. When faced with the same problem, Booz•Allen established the following criteria for deciding whether past configurations were sufficiently similar to current configurations:

(1) Genealogy: Is the current system a direct or indirect derivative of the historical configuration?

(2) Operations: Is the current system operated in the same manner as the historical configurations (e.g., ICBM versus space-launch vehicle)?

(3) Composition: Does the current system use the same types of elements (i.e., SRMs, upper stage, etc.)?

Based on these criteria and other factors, Booz•Allen decided to use test results from flights of the following vehicle configurations to predict future success rates:

Atlas: SLV-3 and later configurations to include SLV-3A, SLV-3C, SLV-3D, G, H, I, II, IIA, IIAS. (Excluded: Atlas A, B, C, LV-3A, 3B, 3C, D, E, F)

Delta: 291X and later configurations to include 391X, 392X, 492X, 592X, 692X, 792X.

Titan: Titan IIIC and later configurations to include IIIB, IIID, IIIE, 34B, 34D, III/CT, IV, II-SLV.