
FIGURES

3.1. Targeting Vehicles Moving in Canopied Terrain with Occasional Open Areas	11
3.2. Configuration at Time of Weapon Impact	12
3.3. Ideal Geometry of Impact	12
3.4. Impact Geometry for Imperfect Targeting and Missile Accuracy	13
3.5. Effect of Finite Weapon “Descent Time”	13
3.6. Summary Depiction of Dynamics	16
3.7. Geometry of a Two-Weapon Missile Salvo	16
4.1. Top-Level View of PEM	26
4.2. User Interface of PEM	27
4.3. Top-Level Data Flow of PEM	28
4.4. Kills per Packet Group Attacked	29
4.5. Data Flow Within Arrival Time Module	30
4.6. Data Flow Within Impact Point Module	31
4.7. Data Flow Within Packet Size Module	32
4.8. AFVs Killed by Single Weapon and by Salvo	33
5.1. Road Network with Routes Followed by Three Red Columns	39
5.2. Detail of an Open-Area Portion of a March Route	40
5.3. Distance Distribution from Aim Point to Kills	44
6.1. Distribution over Salvos of AFVs in Footprint	48
6.2. Distribution over Salvos of AFVs Killed per Salvo	48
6.3. AFVs in Footprint Comparison of PEM with High-Resolution Simulation	50
6.4. AFVs Killed per Salvo Comparison of PEM with High-Resolution Simulation	51
6.5. Analytica Results Display	53

6.6.	Effectiveness of BAT Against an Infinite Column of AFVs Uniformly Spaced at 50 Meter Intervals	55
6.7.	BAT Kills per Salvo in Open Terrain Against Various Red Configurations	56
6.8.	Relative BAT Kills per Unit Time in Open Terrain Against Various Red Configurations	57
6.9.	BAT Kills per Salvo in Mixed Terrain Against Various Red Configurations	59
6.10.	Relative BAT Kills per Unit Time in Mixed Terrain Against Various Red Configurations	60
7.1.	Geometry of Vulnerability Versus Time	65
7.2.	Vulnerability Function Versus Time	66
7.3.	The Standard Deviation of AFVs Killed with Salvo for Various Values of Time of Last Update	76
7.4.	Probability Density (in %) of AFVs Killed with Salvo, Given No Error in Arrival Time	76
7.5.	Probability Density (in %) of AFVs Killed with Salvo, Given a Time of Last Update of 15 Minutes	77
8.1.	Sensor-Fused Weapons Versus BAT in Open Terrain	83
8.2.	Results for Mixed Terrain	84
A.1.	RAND's Suite of High-Resolution Models	90
A.2.	Operation of MADAM	93
B.1.	Relative Positions of Packets in the Southern Column	96
C.1.	Kills Versus Targets	100
C.2.	Variation in Kills per Salvo	101