

List of Tables

2-1	Utility Theory Axioms	24
2-2	Utility Independence	27
3-1	Trajectory Deviation Example for a Rectangular Displacement Region	51
3-2	Trajectory Deviation Example for a Cylindrical Displacement Region	56
5-1	High and Medium Connection Rate Airports	103
6-1	APCDM-1 Parameter Summary	119
6-2	Aircraft Passenger Load Estimates	124
7-1	Preliminary Test Data Sets	126
7-2	Trajectory Deviation Set 1 (Rectangular Region, 45 Realizations).....	127
7-3	Trajectory Deviation Set 2 (Rectangular Region, 27 Realizations).....	128
7-4	Trajectory Deviation Set 3 (Rectangular Planar, 15 Realizations).....	128
7-5	Trajectory Deviation Set 4 (Cylindrical Region, 36 Realizations).....	129
7-6	Trajectory Deviation Set 5 (Cylindrical Planar, 12 Realizations).....	129
7-7	Trajectory Deviation Set 6 (Rectangular Planar, 21 Realizations).....	130
7-8	Trajectory Deviation Set 7 (Rectangular Planar, 33 Realizations).....	130
7-9	Trajectory Deviation Set 8 (Circular Planar, 15 Realizations).....	131
7-10	Level 1 Conflicts Versus Threshold Probability.....	133
7-11	Level 1 and 2 Conflicts Versus Threshold Probability.....	134

7-12	PAEM Computational Results	136
7-13	Test Sets 3 and 4	137
7-14	C_3 Versus C_4 Constraints Generated	137
7-15	Computational Effort Using C_2 , C_3 , and C_4	138
7-16	CDM Values at Optimality (Unconstrained Equity)	143
7-17	E_{\max}^e Sensitivity Analysis	144
7-18	Conflict Risk Probability Thresholds	147
7-19	Probability Threshold Sensitivity Analysis	148
7-20	Probability Threshold Sensitivity Analysis (with $r_s=0$, $\forall s=1,\dots,S$)	149
7-21	APCDM Parameterization	150
7-22	Computational Summary	151