

FIGURES

2.1--NTSB Operating Budget and Staffing	28
2.2--OAS Staff Distribution by Location	29
2.3--OAS Staff Distribution by Type	30
2.4--Thirty-Year Accident History	31
2.5--Growing Complexity of Transport-Category Aircraft	32
2.6--Accident Investigation Duration	34
3.1--Projected Accident Rate Scenarios	40
3.2--Fatalities and Fatal Accident Numbers by Cause of Crash	42
3.3--Synthetic Vision Display Prototype	45
3.4--Decline of Electronic Parts Failure Rates	51
3.5--Increasing Complexity in On-Board Software	56
3.6--Defect Propagation Model	58
3.7--Projected Future World Transport Fleet	62
3.8--Growth in Passenger Capacity of Transport Aircraft	64
3.9--Operator Strategies for Aging Aircraft	67
3.10--Accident Rates for C-135 and B-52 Models by Age of Aircraft	69
3.11--B-727 Hull Loss Rate by Aircraft Age	71
3.12--Wiring Deterioration in Older Aircraft	72
3.13--GA Demand Forecast and Historical Accident Rate	74
3.14--Personal Use Aircraft as Percentage of GA Aircraft and GA Fatalities	75
4.1--Worldwide Hull and Liability Costs, 1980 to 2002	90
4.2--Existing and Notional Party Process Models	113
4.3--The Investigative Scale	119
5.1--NTSB Staffing Numbers During the 1990s	134
5.2--Experience Level of OAS Employees	139
5.3--Age Distribution of Aviation Office Staff	140
5.4--Comparison of NTSB and Aerospace Industry Salaries	143
5.5--Estimated Average Workweek Hours	147
5.6--NTSB Overtime Payments, 1992 to 1997	152
5.7--Investigative Activity, Major Investigations Division, 1989 to 1998	153

5.8--General Aviation Accident Workload, Field vs. Limited Investigations	156
5.9--Fraction of Time NTSB Staff Spend in Work Activities	158
5.10--Public Inquiries Following Crash of TWA Flight 800	161
5.11--Two Notional Views of the NTSB Training Cycle	165
5.12--NTSB Travel and Tuition Budgets for Training, 1992 to 1999	168
5.13--Days Spent in Training per Year by NTSB Respondents According to Years of Experience	170
5.14--Training Sources Used for Professional Development by OAS Staff	174
5.15--Costs of Private-Sector Aviation Training Courses vs. NTSB Funding for Training	176
5.16--Training Hours, OAS Technical Staff (Headquarters and Regional Offices), 1993 to 1994	182
5.17--Continuing and Emerging Skill Areas for Investigators	183
6.1--Entities Acquiring and Distributing Information Within the NTSB	199
6.2--Information Access, Distribution, and Preservation Through a Notional NTSB Knowledge Agent	207
6.3--ATR Aircraft in the U.S. Air Carrier Fleet	211
6.4--NTSB Investigation and Report Process	212
6.5--Discipline Team Model vs. Notional Meta-Team	222
6.6--NTSB's Four Principal Laboratories	229
6.7--NTSB's Open-Loop Accounting System	234
A.1--NTSB Organizational Chart	258