

CONTENTS

	<i>Page</i>		<i>Page</i>
Part I: Overview		Management of Government	
Chapter 1: Introduction and Principal Findings	3	Laboratories	37
Why Be Concerned?	3	Military Dependence on Foreign Technology	39
Principal Findings	4	Health of the Dual-Use Commercial High-Tech Sector	42
Chapter 2: Summary.. . . .	7	Problems in the Defense Industries	46
What Is the Defense Technology Base?	7	Supply of Scientists and Engineers	51
Issues	10	Chapter 4: Managing Department of Defense Technology Base Programs	53
Department of Defense Mechanisms for Making Technology Policy and Technology Investment Strategy	10	Introduction	53
DoD Technology Base Funding	12	Goals and Objectives	54
The Management of Government Laboratories	13	Funding Categories for DoD's RDT&E Activities	54
Foreign Dependence	13	An Overview of Defense Research Programs (6.1).	55
"Dual-Use" Civilian High-Tech Industries.	15	Technical Review of Research Proposals and Programs	57
Defense Industries	17	An Overview of DoD's Technology Base Activities in the Laboratories	57
Supply of Scientists and Engineers	18	Special Technology Base Initiatives	58
Exploiting the Defense Technology Base	18	Planning.	60
How the Defense Department Makes and Implements Technology Policy	19	Oversight and Management in the Office of the Secretary of Defense	61
Roles of the Component Research Institutions	22	The Department of the Navy	64
Army	22	Management of the Navy's Research (6.1) Program	64
Navy.	23	Management of the Navy's Exploratory Development and Advanced Technology Development Programs (6.2& 6.3A)	67
Air Force	23	The Department of the Air Force,	71
Department of Energy	24	Management of the Air Force's Research (6.1) Program	72
The National Aeronautics and Space Administration	24	Management of the Air Force's Exploratory and Advanced Technology Development Programs (6.2 and 6.3A)	73
Other Federal S&T Activities	24	The Department of the Army.	75
University Research Programs	25	Management of the Army's Research (6.1) Program	77
Part II: Background and Analysis		Army's Management of Exploratory and Advanced Technology Development Programs (6.2 and 6.3A)	78
Chapter 3: Maintaining Defense Technology Capacity: Policy Overview	29	The Defense Advanced Research Projects Agency (DARPA)	80
Introduction: An Interactive Perspective	29		
Policy and the Health of the Defense Technology Base.	31		
DoD Technology Base Program Management	31		
DoD Technology Base Program Funding	34		

CONTENTS—Continued

	Page		
Organization	81		
Programs and Priorities	81		
The Strategic Defense Initiative			
Organization	81		
Summary	82		
Chapter 5: Research Institutions and			
Organizations	85		
Defense Department Laboratories	85		
Army Laboratories	85		
88 Navy Laboratories			
Air Force Laboratories	90		
Department of Energy National			
Laboratories	92		
Background	92		
Organization and Management	93		
Multiprogram Laboratories	95		
National Aeronautics and Space			
Administration Laboratories and			
Centers.	98		
Background, Organization, and			
Management	98		
Field Centers	99		
Other Federal Activities	103		
National Science Foundation	103		
Department of Commerce	103		
Department of Transportation	105		
Other Federal Agencies	106		
Small Business Innovative			
Research (SBIR) Program	107		
Private Nonprofit Laboratories.	108		
Federally Funded Research and			
Development Centers	108		
University Affiliates	109		
Independent Nonprofit			
Laboratories	109		
Glossary of Acronyms	111		
		Figures	
		<i>Figure No.</i>	<i>Page</i>
		1. Technology Base Funding,	
		1964-1987	34
		2. Management of the Department of	
		Defense Technology Base Program	62
		3. Navy Organization for Science and	
		Technology	65
		4. Office of Naval Research.	66
		5. Office of Naval Technology	68
		6. Navy 6.2 Program Structure	69
		7. Navy 6.2 Program Strategy	70
		8. Air Force Systems Command R&D	
		Organization.	71
		9. Air Force Office of Scientific	
		Research	73
		10. Army Research and Development	
		Organization	76
		11. Army Materiel Command R&D	
		Organization	76
		12. Army Technology Base Investment	
		Strategy	79
		13. Management Structure for DOE	
		Field Facilities	93
		14. National Bureau of Standards	104
		Tables	
		<i>Table No.</i>	<i>Page</i>
		1. Department of Defense Fiscal Year	
		1988 Funding of Technology Base	
		Programs.	20
		2. Department of Defense Fiscal Year	
		1988 Funding of Technology Base	
		Programs.	53

Part I: Overview