

# Table of Contents

About the Authors.....	7
Acknowledgements.....	9
Abbreviations.....	11
Introduction ( <i>Alexei Arbatov</i> ).....	15

## **Part I.** **Post-Cold War Nuclear Weapons and Strategies**

Chapter 1. Deterrence and Strategic Stability ( <i>Vladimir Dvorkin</i> ).....	25
Chapter 2. The Modern Arsenals of Nuclear States ( <i>Alexei Arbatov</i> ).....	47

## **Part II.** **The Proliferation of Nuclear Weapons**

Chapter 3. Nuclear Energy Prospects ( <i>Peter Topychkanov</i> ).....	77
Chapter 4. The Iranian Problem ( <i>Anton Khlopkov</i> ).....	86
Chapter 5. The North Korean Precedent ( <i>Alexander Vorontsov, Georgy Toloraya</i> ).....	103
Chapter 6. The South Asian Standoff ( <i>Peter Topychkanov</i> ).....	117
Chapter 7. Missile Technology ( <i>Sergei Oznobishchev</i> ).....	143
Chapter 8. Nuclear Terrorism ( <i>Alexander Pikayev</i> ).....	160

## **Part III.** **Reductions of Nuclear Weapons**

Chapter 9. Strategic Offensive and Defensive Arms ( <i>Vladimir Dvorkin</i> ).....	177
Chapter 10. Non-Strategic Nuclear Weapons ( <i>Alexei Arbatov</i> ).....	204

Chapter 11. The Threat of Accidental Nuclear Exchange ( <i>Alexei Arbatov, Vladimir Dvorkin</i> ).....	<b>219</b>
Chapter 12. Nuclear Warheads and Weapons-Grade Materials ( <i>Anatoly Dyakov</i> ).....	<b>233</b>

**Part IV.**  
**Strengthening Nonproliferation Regimes**

Chapter 13. A Systemic Analysis of Nonproliferation ( <i>Alexei Arbatov</i> ).....	<b>259</b>
Chapter 14. IAEA Safeguards ( <i>Roland Timerbaev</i> ).....	<b>268</b>
Chapter 15. NPT: The Right to Withdraw ( <i>Alexei Arbatov</i> ).....	<b>290</b>
Chapter 16. Nuclear Fuel Cycle ( <i>Anatoly Dyakov</i> ).....	<b>302</b>
Chapter 17. Nonproliferation Institutions ( <i>Alexander Kalyadin</i> ).....	<b>323</b>

**Part V.**  
**At the Junction of Disarmament  
and Nonproliferation**

Chapter 18. The Dialectics of Nuclear Disarmament and Nonproliferation ( <i>Alexei Arbatov</i> ).....	<b>349</b>
Chapter 19. Security Assurances ( <i>Alexei Arbatov</i> ).....	<b>363</b>
Chapter 20. Nuclear Testing ( <i>Viktor Slipchenko, Vitaly Shchukin</i> ).....	<b>379</b>
Chapter 21. Fissile Material Production ( <i>Roland Timerbaev</i> ).....	<b>415</b>
Chapter 22 Precision-Guided Conventional Weapons ( <i>Yevgeny Miasnikov</i> ).....	<b>432</b>
Chapter 23. Space Weapons and the Problems Related to Their Prohibition ( <i>Alexei Arbatov, Vladimir Dvorkin</i> ).....	<b>457</b>
Chapter 24. Global Partnership ( <i>Natalia Kalinina</i> ).....	<b>489</b>
Conclusion ( <i>Alexei Arbatov</i> ).....	<b>507</b>
About the Carnegie Endowment.....	<b>521</b>