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Nota di contenuto	<p>""Front matter""; ""PREFACE""; ""TABLE OF CONTENTS""; ""EXECUTIVE SUMMARY""; ""SUMMARY""; ""1 SAFETY, SECURITY, AND RELIABILITY OF THE U.S. NUCLEAR WEAPONS STOCKPILE""; ""2 TECHNICAL MONITORING CAPABILITIES AND CHALLENGES""; ""3 SUSTAINING U.S. TECHNICAL CAPABILITIES UNDER THE CTBT""; ""4 POTENTIAL TECHNICAL ADVANCES FROM NUCLEAR-EXPLOSION TESTING""; ""5 COMPLETE LIST OF FINDINGS AND RECOMMENDATIONS""; ""APPENDIX A Committee on Reviewing and Updating "Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty" (CTBT)""</p> <p>""APPENDIX B List of CTBT Committee and Seismology Subcommittee Meetings""""APPENDIX C The U.S. National Capability to Monitor for Nuclear Explosions""; ""APPENDIX D Monitoring Areas of High Interest""; ""APPENDIX E Dealing with Evasive Underground Nuclear Testing""; ""APPENDIX F Issues Related to Containment of Radioactivity""; ""APPENDIX G U.S. Satellite Nuclear Detonation Detection Capability: Options and Impacts""; ""APPENDIX H Satellite-Based Challenges and Solutions""; ""APPENDIX I References"";</p>

""APPENDIX J List of Acronyms""

""APPENDIX K Glossary of Key Terms from the 2010 CTBT NIE""

Sommario/riassunto

This report reviews and updates the 2002 National Research Council report, Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty (CTBT). This report also assesses various topics, including: the plans to maintain the safety and reliability of the U.S. nuclear stockpile without nuclear-explosion testing; the U.S. capability to detect, locate, and identify nuclear explosions; commitments necessary to sustain the stockpile and the U.S. and international monitoring systems; and potential technical advances countries could achieve through evasive testing and unconstrained testing. Sustaining these technical capabilities will require action by the National Nuclear Security Administration, with the support of others, on a strong scientific and engineering base maintained through a continuing dynamic of experiments linked with analysis, a vigorous surveillance program, adequate ratio of performance margins to uncertainties. This report also emphasizes the use of modernized production facilities and a competent and capable workforce with a broad base of nuclear security expertise.
