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**Exhibit R-1, RDT&E Programs**  
**Defense Threat Reduction Agency**  
**Fiscal Year 2017-2021 Budget Estimates**

**Appropriation: RDT&E, Defense-Wide**

**Date: February 2016**

**OVERVIEW**

The Defense Threat Reduction Agency (DTRA) safeguards the United States and its allies from global Weapons of Mass Destruction (WMD) by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission is directly aligned to strategic and operational planning guidance in the 2015 National Security Strategy, 2015 National Military Strategy, FY 2017-2021 Defense Planning Guidance, 2015-2018 Department of Defense (DoD) Agency Strategic Plan, 2014 Quadrennial Defense Review, 2014 DoD Strategy for Countering Weapons of Mass Destruction, 2014 Independent Review of the Department of Defense Nuclear Enterprise, DTRA/SCC-WMD 2015-2020 Strategic Plan, FY 2017 Budget Guidance for Countering Biological Threats Resource Priorities, 2010 Nuclear Posture Review, and the 2015 Implementation Directive for Better Buying Power 3.0.

The Research, Development, Test & Evaluation (RDT&E) budget funds research supporting DTRA's chartered responsibilities and national commitments across the chemical, biological, radiological, nuclear and high-yield explosives mission space. This research provides critical, cost-effective solutions to strategic, operational and technical challenges associated with WMD surveillance, detection, defeat, prevention, nonproliferation, counterproliferation, consequence management, and monitoring and verification.

As a strategic component of the DTRA mission to safeguard the United States and its allies from global WMD, the Basic Research Initiative balances the imperatives of unconstrained exploration, discovery and experimentation with near- and mid-term priorities arising as a result of continuously evolving threat environments. In support of this mission, the portfolio has two principle goals: (1) to facilitate innovative solutions and revolutionary technologies that transition to cost effective threat reduction capabilities; and, (2) to actively promote the development of the next generation of scientists and researchers committed to maintaining US technological superiority in achieving the Countering WMD (CWMD) mission.

The WMD Defeat Technologies applied research portfolio advances DTRA's CWMD mission by balancing the following imperatives: (1) invest in DTRA's applied research capabilities and increase the CWMD technology base to maximize future pay-off; (2) capitalize on opportunities to deliver innovative, cost-effective solutions to technical challenges that must be resolved prior to system- specific technology investigations and development; and, (3) ensure applied research efforts are directly aligned to the mission-specific capability requirements of the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners.

The Counterproliferation Initiatives advanced technology development portfolio advances the CWMD mission by selecting initiatives that meet the following criteria: (1) transitioning technologies meet mission-specific capability requirements of the Military Departments, Combatant Commanders, other DoD and federal agencies, and international partners; (2) preliminary assessments of components and subsystems confirm the highest potential for technological feasibility, operability, and producibility upon transition out of science and technology (S&T) research; and, (3) programs demonstrate cost effectiveness or cost reduction potential during field testing or simulation at scale. Additional investment in the WMD Defeat Capabilities system development and demonstration portfolio supports International Monitoring System technology requirements under the Nuclear Arms Control Technology program. This portfolio directly supports U.S. and allied warfighter and national technical monitoring requirements and provides vital data used by the treaty monitoring community.

DTRA is committed to supporting Small Business Innovation Research and Small Business Technology Transfer programs. These programs stimulate technological innovation in the private sector, strengthen the role of small business in meeting DoD research and development needs, foster participation of minority and disadvantaged businesses in technological innovation, and increase the commercial application of DoD-supported research and development results.

DTRA rebalanced the overall Agency portfolio to align with strategic direction and minimize risk. The FY 2017 budget submission balances near term operational needs with future technical developments and capabilities. Reductions to the RDT&E portfolio impacted investment in efforts with lower return on investment, lower customer demand, or that were early in the development cycle.

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