

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense	Date: February 2015
---	----------------------------

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 3: Advanced Technology Development (ATD)	PE 0603716D8Z / Strategic Environmental Research and Development Program (SERDP)											
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	122.841	60.651	57.714	65.836	-	65.836	69.905	74.772	80.806	81.925	Continuing	Continuing
P470: Strategic Environmental Research and Development Program (SERDP)	122.841	60.651	57.714	65.836	-	65.836	69.905	74.772	80.806	81.925	Continuing	Continuing

A. Mission Description and Budget Item Justification

Congress established the Strategic Environmental Research and Development Program (SERDP) in 1990 (10 U.S.C. Section 2901-2904) to address Department of Defense (DoD) and Department of Energy (DOE) environmental concerns. It is conducted as a DoD program, jointly planned and executed by the DoD, DOE, and the Environmental Protection Agency (EPA), with strong participation by other Federal agencies, industry, and academia. SERDP's objective is to improve DoD mission readiness and environmental performance by providing new scientific knowledge and cost-effective technologies in the areas of Environmental Restoration, Munitions Response, Resource Conservation and Climate Change, and Weapons Systems and Platforms. SERDP does this by addressing high priority DoD environmental technology requirements. SERDP enhances military operations, improves military systems' effectiveness, enhances military training/readiness, sustains DoD's training and test ranges and installation infrastructure, and helps ensure the safety and welfare of military personnel and their dependents by eliminating or reducing the generation of pollution and use of hazardous materials and reducing the cost of remedial actions and compliance with environmental laws and regulations. As a secondary benefit, SERDP helps solve significant national and international environmental problems. The keys to a growing list of SERDP technological successes are the ability to respond aggressively and proactively to priority defense environmental needs; the pursuit of world-class technical excellence; and an emphasis on constant technology transfer.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	62.324	57.796	68.287	-	68.287
Current President's Budget	60.651	57.714	65.836	-	65.836
Total Adjustments	-1.673	-0.082	-2.451	-	-2.451
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-0.082			
• SBIR/STTR Transfer	-1.673	-			
• Baseline Program Adjustments	-	-	-2.451	-	-2.451

Change Summary Explanation

The revised funding levels for FY 2016 are due to the need to address high priority programs within AT&L as determined by senior leadership.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense										Date: February 2015		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603716D8Z / Strategic Environmental Research and Development Program (SERDP)				Project (Number/Name) P470 / Strategic Environmental Research and Development Program (SERDP)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
P470: Strategic Environmental Research and Development Program (SERDP)	122.841	60.651	57.714	65.836	-	65.836	69.905	74.772	80.806	81.925	Continuing	Continuing

A. Mission Description and Budget Item Justification

Congress established the Strategic Environmental Research and Development Program (SERDP) in 1990 (10 U.S.C. Section 2901-2904) to address Department of Defense (DoD) and Department of Energy (DOE) environmental concerns. It is conducted as a DoD program, jointly planned and executed by the DoD, DOE, and the Environmental Protection Agency (EPA), with strong participation by other Federal agencies, industry, and academia. SERDP's objective is to improve DoD mission readiness and environmental performance by providing new scientific knowledge and cost-effective technologies in the areas of Environmental Restoration, Munitions Response, Resource Conservation and Climate Change, and Weapons Systems and Platforms. SERDP does this by addressing high-priority DoD environmental technology requirements. Technologies developed by SERDP enhance military operations, improve military systems' effectiveness, enhance military training/readiness, sustain DoD's training and test ranges and installation infrastructure, and help ensure the safety and welfare of military personnel and their dependents by eliminating or reducing the generation of pollution and use of hazardous materials and by reducing the cost of remedial actions and compliance with environmental laws and regulations. As a secondary benefit, SERDP helps solve significant national and international environmental problems. The keys to a growing list of SERDP technological successes are the ability to respond aggressively and proactively to priority defense environmental needs; the pursuit of world-class technical excellence; and an emphasis on constant technology transfer.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016
Title: Environmental Restoration	14.633	14.346	16.806
Description: Environmental Restoration (ER) reduces DoD's liabilities by developing technologies for the cost-effective detection, characterization, containment, and remediation of contamination in soil, sediments, and water.			
FY 2014 Accomplishments: Research initiatives focused on the highest priority DoD requirements to reduce DoD's liabilities by developing technologies for the cost-effective detection, characterization, containment, and remediation of contamination in soil, sediments, and water. Specific Statements of Need were released and proposals were selected that will address improved remediation operation through fine scale delineation of contaminated subsurface environments, in situ remediation of perfluoroalkyl contaminated groundwater, and improved understanding of the impact of ongoing, low level contaminant influx to aquatic sediment site restoration. Details are available at www.serd-estcp.org .			
FY 2015 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015		
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603716D8Z / <i>Strategic Environmental Research and Development Program (SERDP)</i>	Project (Number/Name) P470 / <i>Strategic Environmental Research and Development Program (SERDP)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
New research initiatives will focus on the highest priority DoD requirements to reduce DoD's liabilities by developing technologies for the cost-effective detection, characterization, containment, and remediation of contamination in soil, sediments, and water. A Statement of Need was released and proposals are being selected that will address improved understanding of long term natural attenuation processes on contaminants in groundwater. Details are available at www.serdp-estcp.org .				
FY 2016 Plans: New research initiatives will focus on the highest priority DoD requirements to reduce DoD's liabilities by developing technologies for the cost-effective detection, characterization, containment, and remediation of contamination in soil, sediments, and water.				
Title: Munitions Response (MR) Description: Munitions Response (MR) develops detection, discrimination, and remediation technologies for Unexploded Ordnance (UXO) to address the significant DoD liability in the Military Munitions Response Program. Investments are also made to improve active range clearance and to reduce generation of UXO during live fire testing and training operations.		8.006	8.648	11.106
FY 2014 Accomplishments: Research initiatives focused on the highest priority DoD requirements in underwater UXO detection and discrimination, including wide area and detailed surveys; cost-effective recovery and disposal; characteristics of munitions underwater and their environment; and protocols to reduce the costs associated with detecting and remediating UXO underwater. Statements of Need were released and proposals were selected to address these issues. Details are available at www.serdp-estcp.org .				
FY 2015 Plans: New research initiatives will focus on the highest priority DoD requirements in underwater UXO detection and discrimination, advanced sensors, signal processing, supporting technologies, and protocols to reduce the costs associated with detecting and remediating UXO underwater. A Statement of Need was released and proposals are being selected that will address the detection, classification, and remediation of military munitions underwater. Details are available at www.serdp-estcp.org .				
FY 2016 Plans: New research initiatives will focus on the highest priority DoD requirements in underwater UXO detection and discrimination, advanced sensors, signal processing, supporting technologies, and protocols to reduce the costs associated with detecting and remediating UXO underwater.				
Title: Resource Conservation and Climate Change (RC) Description: Resource Conservation and Climate Change (RC) develops the science and technologies required to sustain training and testing ranges.		20.606	18.773	19.706

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015		
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603716D8Z / <i>Strategic Environmental Research and Development Program (SERDP)</i>	Project (Number/Name) P470 / <i>Strategic Environmental Research and Development Program (SERDP)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
<p><i>FY 2014 Accomplishments:</i> Research initiatives focused on the highest priority DoD requirements to develop the science and technologies required to sustain training and testing ranges and respond to requirements in the 2010 QDR, including the assessment of climate change impacts to DoD installations. Specific Statements of Need were released and proposals were selected for funding to address these issues. Details are available at www.serdp-estcp.org.</p> <p><i>FY 2015 Plans:</i> New research initiatives will focus on the highest priority DoD requirements to develop the science and technologies required to sustain training and testing ranges and respond to requirements in the 2010 QDR, including the assessment of climate change impacts to DoD installations. Specific Statements of Need were released and proposals are being selected for funding to address new paradigms for managing species and ecosystems in a non-stationary world and adapting to changes in the hydrologic cycle under non-stationary climate conditions. Details are available at www.serdp-estcp.org.</p> <p><i>FY 2016 Plans:</i> New research initiatives will focus on the highest priority DoD requirements to develop the science and technologies required to sustain training and testing ranges and respond to requirements in the 2010 QDR, including the assessment of climate change impacts to DoD installations.</p>				
<p><i>Title:</i> Weapons Systems and Platforms (WP)</p> <p><i>Description:</i> Weapons Systems and Platforms (WP) develops technologies and materials that reduce the waste and emissions associated with the manufacturing, maintenance, and use of DoD weapons systems and platforms to reduce future environmental liabilities and their associated costs and impacts.</p> <p><i>FY 2014 Accomplishments:</i> Research focused on the highest priority DoD requirements to develop technologies and materials that reduce the waste and emissions associated with the manufacturing, maintenance, and use of DoD weapons systems and platforms to reduce future environmental liabilities and their associated costs and impacts. Specific Statements of Need were released to address the development of environmentally Sustainable Gas Generators and Mono/Bi-Propellants, development of replacements for polyimide composite materials containing methylene dianiline (MDA). Details are available at www.serdp-estcp.org.</p> <p><i>FY 2015 Plans:</i> New research initiatives will focus on the highest priority DoD requirements to develop technologies and materials that reduce the waste and emissions associated with the manufacturing, maintenance, and use of DoD weapons systems and platforms to reduce future environmental liabilities and their associated costs and impacts. Specific Statements of Need were released and proposals</p>		17.406	15.947	18.218

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense		Date: February 2015	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603716D8Z / <i>Strategic Environmental Research and Development Program (SERDP)</i>	Project (Number/Name) P470 / <i>Strategic Environmental Research and Development Program (SERDP)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
are being selected for funding to address sustainable gasless delay formulations and standardized test methodologies for low observable coating durability. Details are available at www.serdp-estcp.org .			
FY 2016 Plans: New research initiatives will focus on the highest priority DoD requirements to develop technologies and materials that reduce the waste and emissions associated with the manufacturing, maintenance, and use of DoD weapons systems and platforms to reduce future environmental liabilities and their associated costs and impacts.			
Accomplishments/Planned Programs Subtotals		60.651	57.714
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics Performance in this program is monitored at two levels. At the lowest level, each of the more than 160 individual projects is measured against both technical and financial milestones on a quarterly and annual basis. At a program-wide level, progress is measured against DoD's environmental requirements and the development of technologies that address these requirements as well as the transition of these technologies to either to demonstration and validation programs or to direct use in the field.			