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<b>Exhibit R-2, RDT&amp;E Budget Item Justification: FY 2018 Office of the Secretary Of Defense</b>	<b>Date: May 2017</b>
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support	PE 0605161D8Z / Nuclear Matters											
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	17.215	5.094	5.302	5.232	-	5.232	5.091	5.160	5.257	5.362	Continuing	Continuing
P161: Nuclear Matters	17.215	5.094	5.302	5.232	-	5.232	5.091	5.160	5.257	5.362	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The purpose of the Nuclear Matters program is to sustain the U.S. nuclear deterrent posture, counter nuclear threats, and to develop nuclear and conventional physical security equipment. The funds for this program are used to support research, development, test and evaluation efforts as well as studies and analyses for nuclear weapons security; use control; nuclear weapons stockpile safety, survivability and performance; countering nuclear threats and office management. Funds are also used to develop and implement plans for stockpile transformation; infrastructure analyses and assessments; DoD-NNSA Nuclear Weapons Council activities, as mandated by Title 10 USC, section 179; radiological and nuclear emergency response efforts; and management of international programs of nuclear cooperation, particularly with respect to enhancing international nuclear safety and security and office management. Nuclear Matters is also responsible for policy development and implementation for personnel reliability; nuclear weapons, nuclear command and control, and special nuclear materials security; use control; nuclear weapons transportation; physical security equipment; countering nuclear threats; and nuclear and radiological incident response.

This Program Element can fund travel to support the requirements of this program.

This appropriation will finance work, including manpower, performed by a government agency or by private individuals or organizations under a contractual or grant arrangement with the government who conduct research (systematic study directed toward fuller scientific knowledge or understanding of the subject studied), development (systematic use of the knowledge and understanding gained from research, for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes) and test and evaluation efforts.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	5.277	5.302	5.272	-	5.272
Current President's Budget	5.094	5.302	5.232	-	5.232
Total Adjustments	-0.183	0.000	-0.040	-	-0.040
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.183	-			
• Internal Directed Reduction	-	-	-0.005	-	-0.005
• DTIC Offset	-	-	-0.035	-	-0.035

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense										Date: May 2017		
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605161D8Z / Nuclear Matters				Project (Number/Name) P161 / Nuclear Matters			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
P161: Nuclear Matters	17.215	5.094	5.302	5.232	-	5.232	5.091	5.160	5.257	5.362	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The purpose of the Nuclear Matters program is to sustain the U.S. nuclear deterrent posture, counter nuclear threats, and to develop nuclear and conventional physical security equipment. The funds for this program are used to support research, development, test and evaluation efforts as well as studies and analyses for nuclear weapons security; use control; nuclear weapons stockpile safety, survivability and performance; countering nuclear threats and office management. Funds are also used to develop and implement plans for stockpile transformation; infrastructure analyses and assessments; DoD-NNSA Nuclear Weapons Council activities, as mandated by Title 10 USC, section 179; radiological and nuclear emergency response efforts; and management of international programs of nuclear cooperation, particularly with respect to enhancing international nuclear safety and security and office management. Nuclear Matters is also responsible for policy development and implementation for personnel reliability; nuclear weapons, nuclear command and control, and special nuclear materials security; use control; nuclear weapons transportation; physical security equipment; countering nuclear threats; and nuclear and radiological incident response.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Nuclear Weapons Council (NWC)	0.510	0.621	0.600
<b>Description:</b> The Nuclear Weapons Council (NWC) is a joint Department of Defense (DoD) and Department of Energy (DOE)/ National Nuclear Security Administration (NNSA) organization established by Congress to facilitate cooperation and coordination between the two Departments as they fulfill their dual agency responsibilities for U.S. nuclear weapons stockpile management.			
<b>FY 2016 Accomplishments:</b> - Oversaw the activities on the Congressionally mandated Joint DoD-DOE Nuclear Weapons Council and its support committees to include the Nuclear Weapons Council Standing and Safety Committee, the Compartmented Advisory Committee and the Action Officer group			
<b>FY 2017 Plans:</b>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>			<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p>- Oversee the activities on the Congressionally mandated Joint DoD-DOE Nuclear Weapons Council and its support committees to include the Nuclear Weapons Council Standing and Safety Committee, the Compartmented Advisory Committee and the Action Officer group</p> <p><b>FY 2018 Plans:</b></p> <p>- Oversee the activities on the Congressionally mandated Joint DoD-DOE Nuclear Weapons Council and its support committees to include the Nuclear Weapons Council Standing and Safety Committee, the Compartmented Advisory Committee and the Action Officer group</p>					
<p><b>Title:</b> International Programs</p> <p><b>Description:</b> The United States also participates in several international programs of cooperation regarding nuclear weapons with foreign governments and regional defense organizations that involve unclassified and classified information exchanges. In general, these agreements are designed to promote safety and security, advance stockpile stewardship and collaborate in counter-proliferation efforts.</p> <p><b>FY 2016 Accomplishments:</b></p> <p>- Built programs of cooperation with international partners.</p> <p>- Sponsored international partners at national-level nuclear weapons accident/incident exercises.</p> <p><b>FY 2017 Plans:</b></p> <p>- Execute confidence building programs of cooperation with international partners.</p> <p>- Sponsor international partners at national-level nuclear weapons accident/incident exercises.</p> <p><b>FY 2018 Plans:</b></p> <p>- Execute confidence building programs of cooperation with international partners.</p> <p>- Sponsor international partners at national-level nuclear weapons accident/incident exercises.</p>			0.319	0.199	0.197
<p><b>Title:</b> Nuclear Surety</p> <p><b>Description:</b> Because of their political and military importance, destructive power, and the potential consequences of an accident or unauthorized act, nuclear weapons and nuclear weapon systems require special consideration and must be protected against risks and threats inherent in their peacetime and wartime environments. Oversight of the DoD nuclear surety program is provided by Deputy Assistant Secretary of Defense for Nuclear Matters (DASD(NM)).</p> <p><b>FY 2016 Accomplishments:</b></p> <p>- Conducted OSD oversight and provided direction for actions taken under DoDD 4540.5, "Transportation of Nuclear Weapons"; DoDD S-5210.81, "United States Nuclear Weapons Command and Control, Safety, and Security"; DoDD S-3150.7, "Controlling</p>			0.773	0.748	0.822

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2016</b>	<b>FY 2017</b>
<p>the Use of Nuclear Weapons"; DoDD 5210.42 and 5210.42-R, "The DoD Personnel Reliability Program"; and DoDD 5210.41 and S-5210.41-M, "Physical Security of Nuclear Weapons."</p> <p>- Supported activities that support nuclear surety policy and provided OSD oversight of the Nuclear Surety program.</p> <p><b>FY 2017 Plans:</b></p> <p>- Conduct OSD oversight and provide direction for actions taken under DoDD 4540.5, "Transportation of Nuclear Weapons"; DoDD S-5210.81, "United States Nuclear Weapons Command and Control, Safety, and Security"; DoDD S-3150.7, "Controlling the Use of Nuclear Weapons"; DoDD 5210.42 and 5210.42-R, "The DoD Personnel Reliability Program"; and DoDD 5210.41 and S-5210.41-M, "Physical Security of Nuclear Weapons."</p> <p>- Support activities that support nuclear surety policy and provide OSD oversight of the Nuclear Surety program.</p> <p><b>FY 2018 Plans:</b></p> <p>- Conduct OSD oversight and provide direction for actions taken under DoDD 4540.5, "Transportation of Nuclear Weapons"; DoDD S-5210.81, "United States Nuclear Weapons Command and Control, Safety, and Security"; DoDD S-3150.7, "Controlling the Use of Nuclear Weapons"; DoDD 5210.42 and 5210.42-R, "The DoD Personnel Reliability Program"; and DoDD 5210.41 and S-5210.41-M, "Physical Security of Nuclear Weapons."</p> <p>- Support activities that support nuclear surety policy and provide OSD oversight of the Nuclear Surety program.</p>			
<p><b>Title:</b> Stockpile Transformation</p> <p><b>Description:</b> To meets its security needs and those of its allies, the U.S. will need a safe, secure, and reliable nuclear deterrent for the foreseeable future. There's increased risk, absent nuclear testing, in assuring long-term safety and reliability of today's aging stockpile—the legacy warheads left over from the Cold War. Today's nuclear weapons complex is not sufficiently "responsive" to technical problems in the stockpile, or to potential emerging threats. The task is to ensure the U.S. nuclear weapons stockpile and supporting infrastructure, meets long-term national security needs.</p> <p><b>FY 2016 Accomplishments:</b></p> <p>- Conducted life cycle activities in support of the nuclear weapons stockpile under DoDD 3150.1, "Nuclear Weapons Life Cycle" and DoDI 5030.55, "DoD Procedures for Joint DoD-DOE Nuclear Weapons Life Cycle Activities.</p> <p>- Managed DoD RDT&amp;E activities for nuclear warheads to include B61, W76, W78, W80(0,1), B83, W87, W88 Weapons.</p> <p>- Supported studies for warhead replacement.</p> <p><b>FY 2017 Plans:</b></p> <p>- Conduct life cycle activities in support of the nuclear weapons stockpile under DoDD 3150.1, "Nuclear Weapons Life Cycle" and DoDI 5030.55, "DoD Procedures for Joint DoD-DOE Nuclear Weapons Life Cycle Activities.</p> <p>- Manage DoD RDT&amp;E activities for nuclear warheads to include B61, W76, W78, W80(0,1), B83, W87, W88 Weapons.</p>		1.136	1.268
			1.033

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>			<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<ul style="list-style-type: none"> <li>- Support studies for warhead replacement.</li> </ul> <p><b>FY 2018 Plans:</b></p> <ul style="list-style-type: none"> <li>- Conduct life cycle activities in support of the nuclear weapons stockpile under DoDD 3150.1, "Nuclear Weapons Life Cycle" and DoDI 5030.55, "DoD Procedures for Joint DoD-DOE Nuclear Weapons Life Cycle Activities.</li> <li>- Manage DoD RDT&amp;E activities for nuclear warheads to include B61, W76, W78, W80(0,1), B83, W87, W88 Weapons.</li> <li>- Support studies for warhead replacement.</li> </ul>					
<p><b>Title:</b> Survivability and Weapons of Mass Destruction (WMD)</p> <p><b>Description:</b> In the 2010 Quadrennial Defense Review (QDR), the SECDEF directed the Department to rebalance its policy, doctrine, and capabilities to better support six key missions. The fifth on the list of key missions is to prevent proliferation and counter weapons of mass destruction. This project directly supports the nation's defense strategy.</p> <p><b>FY 2016 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- Oversaw the Nuclear Defense Portfolio.</li> <li>- Planned and coordinated the activities of the National Nuclear Forensics Steering Committee and Working Group.</li> <li>- Developed OSD-wide approach to overseeing Global Nuclear Defense missions within DoD.</li> </ul> <p><b>FY 2017 Plans:</b></p> <p>Continue to:</p> <ul style="list-style-type: none"> <li>- Oversee the Nuclear Defense Portfolio.</li> <li>- Plan and coordinate the activities of the National Nuclear Forensics Steering Committee and Working Group.</li> <li>- Develop OSD-wide approach to overseeing Global Nuclear Defense missions within DoD.</li> </ul> <p><b>FY 2018 Plans:</b></p> <p>Continue to:</p> <ul style="list-style-type: none"> <li>- Oversee the Nuclear Defense Portfolio.</li> <li>- Plan and coordinate the activities of the National Nuclear Forensics Steering Committee and Working Group.</li> <li>- Develop OSD-wide approach to overseeing Global Nuclear Defense missions within DoD.</li> </ul>			0.744	0.757	0.734
<p><b>Title:</b> Nuclear Matters Support Program</p> <p><b>Description:</b> The Nuclear Matters support program conducts studies / analyses; DoD-NNSA Nuclear Weapons Council activities; and provides funding for analytical support functions.</p> <p><b>FY 2016 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>- Submitted annual reports to the President and the Congress.</li> <li>- Oversaw DoD/DOE relationship regarding the survivability and surety of the national nuclear stockpile.</li> </ul>			0.723	0.733	0.900

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2016	FY 2017	FY 2018
<div>- Served as DoD Sigma 15 Approval Authority (Interface with DOE/NNSA).</div> <div>- Addressed Freedom of Information Act and Mandatory Declassification Requests.</div> <div>FY 2017 Plans:</div> <div>- Submit annual reports to the President and the Congress.</div> <div>- Continue to oversee DoD/DOE relationship regarding the survivability and surety of the national nuclear stockpile.</div> <div>- Continue as DoD Sigma 15 Approval Authority (Interface with DOE/NNSA).</div> <div>- Continue to address Freedom of Information Act and Mandatory Declassification Requests.</div> <div>FY 2018 Plans:</div> <div>- Submit annual reports to the President and the Congress.</div> <div>- Continue to oversee DoD/DOE relationship regarding the survivability and surety of the national nuclear stockpile.</div> <div>- Continue as DoD Sigma 15 Approval Authority (Interface with DOE/NNSA).</div> <div>- Continue to address Freedom of Information Act and Mandatory Declassification Requests.</div>					
<div>Title: Physical Security and PPBE Support</div> <div>Description: Provides contract support services that support the Physical Security Enterprise &amp; Analysis Group, the Security Policy Verification Committee and all Planning, Programming, Budgeting and Execution needs for the Office of the Assistant Secretary of Defense for Nuclear, Chemical and Biological Defense Programs / Nuclear Matters.</div> <div>FY 2016 Accomplishments:</div> <div>- Supported the Physical Security Enterprise &amp; Analysis Group</div> <div>- Supported the Security Policy Verification Committee</div> <div>- Provided all Planning, Programming, Budgeting and Execution support for the Nuclear Matters' portfolio and Countering Weapons of Mass Destruction Systems</div> <div>FY 2017 Plans:</div> <div>- Support the Physical Security Enterprise &amp; Analysis Group</div> <div>- Support the Security Policy Verification Committee</div> <div>- Provide all Planning, Programming, budgeting and Execution support for the Nuclear Matters' portfolio</div> <div>FY 2018 Plans:</div> <div>- Support the Physical Security Enterprise &amp; Analysis Group</div> <div>- Support the Security Policy Verification Committee</div> <div>- Provide all Planning, Programming, budgeting and Execution support for the Nuclear Matters' portfolio</div>			0.889	0.976	0.946
Accomplishments/Planned Programs Subtotals			5.094	5.302	5.232

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<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> Success in this area is measured by compliance with various statutes and DoD directives that govern the conduct of the affairs within the Office of DASD(Nuclear Matters). Success is also measured by the currency of information and usability of the website, timeliness and responsiveness of reports due to Congress, performance in various response exercises, and feedback from a number of senior-level government organizations that DASD(Nuclear Matters) supports.		