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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603832D8Z I <i>DoD Modeling and Simulation Management Office</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	88.944	2.908	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
P476: <i>DoD Modeling and Simulation Management Office</i>	88.944	2.908	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

Modeling and Simulation (M&S) is a key enabler of DoD capabilities; underpins innovative solutions meeting real-world national security challenges; acts as a force multiplier; saves resources; and saves lives. The DoD Modeling and Simulation Management Office (MSMO), designated by the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) to be the focal point and advocate for DoD M&S, enhances the DoD M&S Enterprise by (1) enabling cooperation and collaboration in identifying, developing and sustaining modeling and simulation solutions; and (2) promoting technology solutions, including common M&S architectures, standards, and services that improve interoperability, reuse, and cost effectiveness of DoD M&S.

In FY 2016, this Program Element (PE) will be transferred to a new PE 0603833D8Z entitled, "Engineering Science and Technology" in order to support the Deputy Assistant Secretary of Defense (Systems Engineering) priorities -- to "grow engineering capabilities to address emerging Defense challenges" and to "champion systems engineering as a tool to improve acquisition quality." Engineering science and technology, including modeling and simulation (M&S) and systems engineering (SE) research, support the cost-effective acquisition of complex systems and the full range and scope of Department of Defense (DoD) missions and operations.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	2.995	0.000	0.000	-	0.000
Current President's Budget	2.908	0.000	0.000	-	0.000
Total Adjustments	-0.087	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.086	-			
• FY15 Reprog. for Cancelled Account	-0.001	-			

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Office of the Secretary Of Defense **Date:** February 2016

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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
P476: DoD Modeling and Simulation Management Office	88.944	2.908	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

Modeling and Simulation (M&S) supports the full range and scope of the Department of Defense (DoD) missions and operations. M&S is a key enabler of DoD capabilities; underpins innovative solutions meeting real-world national security challenges, and saves resources. The Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), under the authority of DoD Directive 5134.01, designated the DoD Modeling and Simulation Management Office (MSMO) to be the focal point and advocate for Defense M&S to enhance the Defense M&S Enterprise by (1) enabling cooperation and collaboration in identifying, developing and sustaining modeling and simulation solutions; and (2) promoting technology solutions, including common M&S architectures, standards, and services that improve interoperability, reuse, and cost effectiveness of DoD M&S. MSMO executes its efforts in accordance with the USD(AT&L)-promulgated DoD Directive 5000.59, "Management of Modeling and Simulation" and DoD Instruction 5000.70, "Management of DoD Modeling and Simulation (M&S) Activities;" and other DoD Issuances, including DoD 4120.24-M, "DoD Standardization Program (DSP) Policies and Procedures" and DoD Instruction 3200.14, "Principles and Operational Parameters of the DoD Scientific and Technical Information Program."

MSMO is responsible for:

- Planning, coordinating, and managing funds to support enterprise-level M&S activities that guide the Defense M&S Community to achieve the DoD Strategic Vision for M&S.
- Bringing together M&S stakeholders to advise and assist on finding solutions for removing the barriers to interoperability, reuse, commonality, efficiency, and effectiveness.
- Developing, coordinating, and advocating for, with advice and assistance from the DoD M&S Steering Committee, policy/guidance, technology, standards, best practices, and strategic planning processes that promote interoperability and reuse across the Department.

MSMO also serves as DoD's:

- Focal point and advocate for coordinating M&S information exchanges and interactions within DoD, with other U.S. Government departments and agencies, international allies, industry and academia.
- Lead Standardization Activity (LSA) for managing M&S standards and methodologies.

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

	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<b>Title:</b> DoD Modeling and Simulation Management Office (MSMO)	2.908	-	-
<b>Description:</b> MSMO, as the USD(AT&L)-designated focal point for Defense modeling and simulation (M&S), is responsible for maintaining and enhancing policies, standards, technology, and collaboration to ensure the efficiency and effectiveness of the M&S that supports the full range and scope of Defense missions and operations.			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p><b><i>FY 2015 Accomplishments:</i></b>                      In FY 2015, MSMO focused on M&amp;S technical advocacy and enterprise-level support. Traditionally, the MSMO provided R&amp;D project funds to OSD, Military Department and Agency community organizations to develop solutions for identified M&amp;S challenges. The requested FY 2015 budget reflected the revised budget for MSMO to: (1) conduct management and technical support for the Department's current and long-term M&amp;S needs; (2) study opportunities to leverage relevant DoD Information Technology (IT) enterprise capabilities and DoD-, Industry-, and Academia-developed M&amp;S technologies; and (3) continue to advocate an enterprise approach for the future of DoD M&amp;S, maintaining strong engagement and ties with DoD and external community stakeholders.</p> <p>MSMO structured its FY 2015 efforts in four categories: policy and guidance, standards, technology, and collaboration, as follows:</p> <p>Policy and Guidance:</p> <ul style="list-style-type: none"> <li>• Updated policy and guidance to require engagement with Test and Evaluation with the Defense M&amp;S Catalog.</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>• Developed, enhanced, and advocated the M&amp;S enterprise suite of tools, including achieving full operational capability of the Defense M&amp;S Catalog.</li> <li>• Chaired M&amp;S Community of Interest and working groups fostering Defense-wide collaboration, including:                             <ul style="list-style-type: none"> <li>o Architecture: technical activities in simulation interoperability and architectures.</li> <li>o Cyber M&amp;S: cyber and traditional kinetic Live, Virtual, Constructive (LVC) interoperability; and modeling of cyber attacks and effectiveness.</li> </ul> </li> </ul> <p>Collaboration:</p> <ul style="list-style-type: none"> <li>• Represented the U.S. interests in Interagency, and International M&amp;S activities, e.g.:                             <ul style="list-style-type: none"> <li>o Chaired The Technical Cooperation Program (TTCP) Joint Systems and Analysis Group (JSA) Technical Panel for Modelling and Simulation (TP-2), addressing issues such as Coalition Simulation Interoperability, Electronic Warfare, and Cyber M&amp;S.</li> <li>o Served as the US Principal Voting Member for the NATO M&amp;S Group (NMSG) and participated in NMSG task groups including M&amp;S as a Service, M&amp;S Technology Roadmap, and M&amp;S for Cyber Defense.</li> <li>o Furthered bilateral partnerships with other international M&amp;S organizations including the Republic of Korea Defense Agency for Technology and Quality (DTaQ) High Level Architecture (HLA) compliance testing.</li> </ul> </li> </ul>				
<b>Accomplishments/Planned Programs Subtotals</b>		2.908	-	-

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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> Performance in this program is monitored in the following ways:  <ul style="list-style-type: none"><li>- Number of instances where M&amp;S standards, technical best practices, or tools have been adopted or employed.</li><li>- Number of M&amp;S resources (tools, data, and services) made visible or updated in the DoD M&amp;S Enterprise Catalog for reuse and the completeness of each record according to DoD discovery metadata standards.</li><li>- Number of users accessing and completing DoD-sponsored training venues for educating the M&amp;S workforce.</li></ul>		