Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 6: RDT&E

PE 0605718A I Army Modeling & Sim X-Cmd Collaboration & Integ

Management Support

COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	1.375	1.282	1.125	-	1.125	1.485	1.613	1.643	1.551	-	-
S03: Analysis M&S Tools and Services	-	1.375	1.282	1.125	-	1.125	1.485	1.613	1.643	1.551	-	-

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

#### Note

FY13 adjustments attributed to Congressional General Reductions (-2 thousand); SBIR/STTR transfers (-37 thousand); Sequestration reductions (-131 thousand). FY15 reduction attributed to realignment to other higher priority Army programs.

## A. Mission Description and Budget Item Justification

PE 0605718A promotes the Army's Modeling and Simulation (M&S) strategy, defined by five guiding priorities: (1) formulate Army M&S policies; (2) develop and employ management processes for models, simulations and data; (3) develop M&S standards, architectures, networks and environments; (4) develop/employ new M&S tools and simulation technology; (5) develop an M&S workforce. PE 0605718A focuses on priorities 3 and 4.

M&S Standards, Architectures, Networks and Environments: The consistent use of standards, architectures, networks and environments advances the goal of interoperability. The Army coordinates with Joint, Interagency, Intergovernmental, and Multinational (JIIM) partners along with industry and academia to develop/employ standards that promote collaboration and facilitate the sharing of tools, data and information. The Army oversees procedures and processes for the appropriate use of standards to foster common formats and increase M&S and data reuse. The Army ensures these standards, architectures, networks and environments are readily accessible and can be reliably applied by users.

M&S Tools and Simulation Technology: The Army must have credible M&S tools and data to support the full range of Army organizational missions and functional responsibilities. M&S results that are timely and credible enhance decision making. The Army must develop and accredit reliable M&S tools so that decision makers and senior leaders benefit from the results and thus support the continued development, integration and use of such tools. To ensure credibility and reliability of results, M&S managers, developers and users must make the capabilities, constraints, limitations and assumptions of their M&S tools readily accessible. PE 0605718A provides for the development and employment of tools in the form of models, simulations and data that support the full range of Army interests and deliver timely information to enhance effective decision making. Moreover, these tools can be documented, verified, validated and accredited for their intended purpose in order to provide timely, credible results.

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 6: RDT&E

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army

PE 0605718A I Army Modeling & Sim X-Cmd Collaboration & Integ

Date: March 2014

Management Support

FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
1.545	1.283	1.555	-	1.555
1.375	1.282	1.125	-	1.125
-0.170	-0.001	-0.430	-	-0.430
-0.002	-0.001			
-	-			
-	-			
-	-			
-	-			
-	-			
-0.037	-			
-	-	-0.430	-	-0.430
-0.131	-	-	-	-
	1.545 1.375 -0.170 -0.002 - - - - - - - - - - -	1.545	1.545	1.545

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army									Date: March 2014			
Appropriation/Budget Activity 2040 / 6				, ,					Project (Number/Name) S03 I Analysis M&S Tools and Services			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO *	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S03: Analysis M&S Tools and Services	-	1.375	1.282	1.125	_	1.125	1.485	1.613	1.643	1.551	-	-
Quantity of RDT&E Articles	_	_	_	-	_	_	-	_	-	_		

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

#### Note

FY14-18 funds include those reprogrammed from PE0605718A, Project S05 - SIMTECH: \$124,000, \$116,000, \$117,000, \$117,000, \$118,000. Reprogramming occurred during the POMBES14-18 cycle.

## A. Mission Description and Budget Item Justification

The project "Analysis Tools and Services" has two functions:

Function 1 (priority 3 of the Army M&S strategy) -- Develop M&S standards, architectures, networks and environments that promote sharing, interoperability, access and reliable application of tools, formats, data and information among/for users. M&S = Modeling and Simulation.

Function 2 (priority 4 of the Army M&S strategy) -- Develop and improve tools and technology in the form of models, simulations and data that support the full range of Army interests and deliver timely information to enhance effective decision making. Moreover, these tools can be documented, verified, validated and accredited for their intended purpose. This is priority 4 of the Army M&S strategy.

Resources under Project S03 support the five M&S communities (Acquisition, Analysis, Experimentation, Intelligence, Test & Evaluation, Training) at the enterprise level through enabling efforts. These efforts include the following: (a) design models, simulations, data and tools that are resident within one organization but reusable and trusted by M&S practitioners across the Army M&S Enterprise; (b) leverage industry and academia; (c) promote interoperability within M&S and between M&S and operational capabilities.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Irregular Warefare	0.200	-	-
Articles:	-	-	-
<b>Description:</b> Modeling for irregular warfare will assist the Army in achieving its strategic objectives through indirect means with the same degree of dominance it employs in major combat operations. Military operations associated with irregular warfare are foreign internal defense, stability operations, counterinsurgency, combating terrorism, unconventional warfare, and application of the dynamics of cultural and human behavior.			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: M	arch 2014			
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605718A I Army Modeling & Sim X- Cmd Collaboration & Integ		ect (Number/Name) I Analysis M&S Tools and Services				
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2013	FY 2014	FY 2015		
FY 2013 Accomplishments: FY13 efforts were in the area of modeling for one or more of the finternal defense, stability operations, counterinsurgency, combati the dynamics of cultural and human behavior. The goal was to e operations while expanding the capabilities for irregular warfare.	ng terrorism, unconventional warefare, and application of						
Title: M&S Data Management	Δ.	rticles:	0.500	-			
<b>Description:</b> Efforts applied to M&S data managment allow the A collection process; a robust data mining process; and an accessil (especially for current operating and generating environments). Tability to provide M&S support to the decision-making, concept defect to provide M&S support to the decision-making, concept defect to provide M&S and standard robust data collection process; a robust data mining process; and credible modeling (especially for current operating and generating request for proposals to the Army M&S community. The request	Army M&S community to acquire an improved, robust data ble data repository to enable more responsive, credible more responsive, and training processed as to allow the Army M&S community to acquire an improve I an accessible data repository to enable more responsive, genvironments). Specific projects were selected by way or	deling s in its es.					
Title: Army Network Modeling		rticles:	0.200	-			
<b>Description:</b> The Army Network is an enhanced, interoperable conformed decisions and promotes organizational agility, lethality a with space-based and aerial sensors, robots and command posts locating the enemy, friendly forces and civilian populations; by recenabling the application of precise lethal fires.	and sustainability. The network links soldiers on the battlefice. These systems provide situational awareness and contro	eld ol by					
FY 2013 Accomplishments: FY13 activities covered modeling for the Army Network to maxim and aerial sensors, robots, and command posts) that provide situ		sed					
<b>Title:</b> Expansion of Modeling & Simulation (M&S) Capabilities to Semi-Automated Forces (OneSAF)	One		0.475	-			
	A	rticles:					

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: N	larch 2014		
Appropriation/Budget Activity 2040 / 6	R-1 Program Element (Number/Name) PE 0605718A I Army Modeling & Sim X- Cmd Collaboration & Integ	Project (Number/Name) S03 / Analysis M&S Tools and Services				
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each)		FY 2013	FY 2014	FY 2015	
<b>Description:</b> Expansion of M&S capabilities to OneSAF increases of costs. Increasing OneSAF capabilities leads to the goal of implement software products) updates and changes associated with transformaticycle. The reduction of reduncies; i.e., multiple software products with of the expanded OneSAF.	nting ONE TIME (rather than through the use of multiple tion, modernization and operations across the simulation	n life				
FY 2013 Accomplishments: FY13 efforts enhanced the stability, interoperability and cross-commutwo focal points: (1) capability gaps identified in the FY12 OneSAF furnity of the OneSAF user community and integrates findings of the OneSAF Roac capabilities and needs into the simulation software to enable the anal events.	unctional review (review consolidates the needs of the admap project) and (2) integration of emerging Army					
Title: Develop M&S standards, architectures, networks and environment		4:-1	-	0.428	0.36	
<b>Description:</b> Develop M&S standards, architectures, networks and eand reliable application of tools, formats, data and information amon	environments that promote sharing, interoperability, acc	ess	-	-	-	
FY 2014 Plans:Fy14 funds are/will be distributed among activities that promote the standards, architectures, networks and environments. The specific deprior to the start of and during FY14.		olished				
FY 2015 Plans:Fy15 funds will be distributed among activities that promote the third architectures, networks and environments. The specific distribution to the start of and during FY15.						
Title: Develop M&S tools and technology	Δ	ticles:	-	0.854	0.758	
<b>Description:</b> Develop and improve tools and technology in the form Army interests and deliver timely information to enhance effective deverified, validated for their intended purpose.	of models, simulations and data that support the full rar	nge of	-	-		
FY 2014 Plans:						

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: N	Date: March 2014			
, · · · · · · · · · · · · · · · · · · ·	R-1 Program Element (Number/Name) PE 0605718A I Army Modeling & Sim X- Cmd Collaboration & Integ	Project (Number/Name) S03 I Analysis M&S Tools and Service				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in		FY 2013	FY 2014	FY 2015		
Fy14 funds are/will be distributed among activities that promote the fourth prior and technology. The specific distribution is based on requirements and priorities						

FY 2015 Plans:

..Fy15 funds will be distributed among activities that promote the fourth priority of the Army M&S strategy: develop M&S tools and technology. The specific distribution will be based on requirements and priorities established prior to the start of and during FY15.

**Accomplishments/Planned Programs Subtotals** 

1.375 1.125 1.282

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

**D. Acquisition Strategy** 

N/A

E. Performance Metrics

N/A