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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy Date: February 2018

Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	35.325	4.529	5.238	7.097	-	7.097	7.119	7.291	7.465	7.641	Continuing	Continuing
2222: Modeling & Simulation	35.325	4.529	5.238	7.097	-	7.097	7.119	7.291	7.465	7.641	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element addresses projects under the Navy Modeling and Simulation (M&S) Office. It supports technical and management initiatives directed by Congress, Department of Defense (DoD), Secretary of the Navy (SECNAV), and Chief of Naval Operations (CNO) with the aim of bringing organization, focus, and efficiency to the development and use of M&S throughout the Navy and DoD. It provides a central agency for the formulation and implementation of policy and guidance in M&S, and represents Navy interests in Joint and other Agency initiatives. It funds efforts to define and coordinate the corporate Navy M&S policy and guidance to evolve an interoperable and reusable core M&S capability consistent with the M&S technical framework prescribed by DoD.

Efforts are organized around three product areas:

- (1) Core Services: This activity provides essential planning and coordination of M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies to develop policies and procedures necessary for M&S standards, visibility, and potential reuse across DoD.
- (2) Community Services: This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies, standards, VV&A, and reuse within their Community and to ensure that the wider DON and DoD are aware (visibility) of the M&S products and services, initiatives, processes, and standards.
- (3) Community Experiments and Prototypes: This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy M&S and investigates Service-unique requirements for standards or guidance to achieve M&S efficiencies.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	4.709	5.238	5.280	-	5.280
Current President's Budget	4.529	5.238	7.097	-	7.097
Total Adjustments	-0.180	0.000	1.817	-	1.817
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.180	0.000			
• Program Adjustments	0.000	0.000	1.981	-	1.981
• Rate/Misc Adjustments	0.000	0.000	-0.164	-	-0.164

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<p><u>Change Summary Explanation</u></p> <p>The FY 2017 request was reduced by -\$0.270 million to account for the availability of prior year execution balances.</p> <p>The funding increase from FY 2018 to FY 2019 supports the establishment of a Common Enterprise M&S Environment within the Navy, which will add a new focus on developing standards, architectures and tools for emerging and existing high-priority M&S activities. This will include open interfaces to integrate Live Navy Aircraft/Ship/Subs/Networks with Virtual simulations and Constructive models.</p> <p>Technical: Not applicable.</p> <p>Schedule: Not applicable.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy										Date: February 2018		
Appropriation/Budget Activity 1319 / 7					R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support				Project (Number/Name) 2222 / Modeling & Simulation			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
2222: Modeling & Simulation	35.325	4.529	5.238	7.097	-	7.097	7.119	7.291	7.465	7.641	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This Program Element addresses projects under the Navy Modeling and Simulation (M&S) Office. It supports technical and management initiatives directed by Congress, Department of Defense (DoD), Secretary of the Navy (SECNAV), and Chief of Naval Operations (CNO) with the aim of bringing organization, focus, and efficiency to the development and use of M&S throughout the Navy and DoD. It provides a central agency for the formulation and implementation of policy and guidance in M&S, and represents Navy interests in Joint and other Agency initiatives. It funds efforts to define and coordinate the corporate Navy M&S policy and guidance to evolve an interoperable and reusable core M&S capability consistent with the M&S technical framework prescribed by DoD.												
Efforts are organized around three product areas:												
(1) Core Services: This activity provides essential planning and coordination of M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies to develop policies and procedures necessary for M&S standards, visibility, and potential reuse across DoD.												
(2) Community Services: This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies, standards, VV&A, and reuse within their Community and to ensure that the wider DON and DoD are aware (visibility) of the M&S products and services, initiatives, processes, and standards.												
(3) Community Experiments and Prototypes: This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy M&S and investigates Service-unique requirements for standards or guidance to achieve M&S efficiencies.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: CORE SERVICES								0.928	1.000	1.032	0.000	1.032
Articles:								-	-	-	-	-
Description: This activity provides essential planning and coordination of M&S efforts with other Services, the Office of Secretary of Defense (OSD), the Joint Staff, and other agencies to develop policies and procedures necessary for M&S visibility and potential reuse across DoD. It provides updates to the Navy M&S website, M&S Master Plan, and M&S Investment Strategy. This activity supports development of common services, tools, and databases to ensure the integration and connectivity of M&S products employed in Naval assessments, training, acquisition, and among operational communities. It manages and maintains the Navy M&S Information Service (NMSIS), the central Naval M&S information resource to support informed M&S investment decision making across DON. It implements and manages the Modeling and Simulation (M&S) Quality Assurance (VV&A) process and guidelines for implementing for modeling, simulation, and data. It												

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
reviews both new and legacy M&S VV&A plans and reports and develops and maintains the Naval M&S VV&A repository. It establishes and implements a VV&A training curriculum for developers and Accreditation Agents.						
FY 2018 Plans: - Promote consistent application of M&S "Best Practices" and associated technologies to improve support across the DON Enterprise. - Review and Update SECNAV M&S policy and guidance. - Educate the M&S workforce on use of M&S to support efficient and interoperable RDT&E. - Provide VV&A, Standards and M&S support to programs, PEOs and other DON activities. - Promulgate M&S Best Practices and Common Tools across DON M&S Enterprise.						
FY 2019 Base Plans: - Promote consistent application of M&S "Best Practices" and associated technologies to improve support across the DON Enterprise. - Review and Update the Verification, Validation and Accreditation (VV&A) policy and guidance. - Educate the M&S workforce on use of M&S to support efficient and interoperable RDT&E. - Provide VV&A, Standards and M&S support to programs, PEOs and other DON activities.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: The increase from FY 2018 to FY 2019 will support workforce training and education in efficient use of Live-Virtual-Constructive environments and VV&A of large-scale complex simulations.						
Title: COMMUNITY SERVICES		1.219	1.308	1.737	0.000	1.737
Articles:		-	-	-	-	-
Description: This activity provides M&S subject matter expert support embedded in the Navy M&S Communities to recommend implementations for M&S policies and standards within their Community and to ensure that the wider DON is aware of the M&S products and services, initiatives, processes, and standards (visibility). It promotes M&S reuse through cooperative Community M&S activities which identify and prioritize M&S capability requirements between and across Communities. It also provides an M&S degree program through the Naval Postgraduate School (NPS), Modeling Virtual Environments and Simulation (MOVES) curriculum which qualifies officers to fill 6202-P coded billets. Financial support for thesis and dissertation efforts						

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
done by the students is covered by this funding. Topics are broad M&S topics of concern which are prioritized based on how they meet the requirements across, between and within the M&S Communities.						
FY 2018 Plans: - Develop open standards and architectures for M&S Communities' use which will foster Virtual Environments and M&S Enterprise Solutions. - Consolidate investment requirements of the M&S Communities to identify common or similar gaps and develop common solutions. - Develop DON Officer M&S postgraduate Knowledge requirements and submit to the M&S program at Naval Postgraduate School. - Fund DON M&S Forum tasks to share M&S efforts, Best Practices, and lessons learned.						
FY 2019 Base Plans: - Develop open standards and architectures for M&S Communities' use which will foster Virtual Environments and M&S Enterprise Solutions. - Consolidate investment requirements of the M&S Communities to identify common or similar gaps and develop common solutions. - Develop DON Officer M&S postgraduate Knowledge requirements and submit to the M&S program at Naval Postgraduate School. - Fund DON M&S Forum tasks to share M&S efforts, Best Practices, and lessons learned. - Coordinate M&S workforce education across DON. - Train and educate workforce in efficient use of Live-Virtual-Constructive environments and VV&A of large-scale complex simulations.						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: The increase from FY 2018 to FY 2019 will be used to develop, promulgate and employ Set Based Design methodologies, standards and tools across multiple Domains and Communities. It will also be used to develop Common Development Environment capabilities to integrate M&S tools and improve connectivity across DON Warfare Centers, Labs, and facilities.						
Title: COMMUNITY EXPERIMENTS and PROTOTYPES		2.382	2.930	4.328	0.000	4.328
Articles:		-	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<p>Description: This activity conducts experiments and prototypes aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy M&S, and investigate Service-unique requirements for standards or guidance. Individual efforts focus on developing or evaluating approaches to optimize training, assessments and acquisition functional, mission objectives through more efficient development and use of M&S. This activity develops methodologies and standards that will result in model and data reusability and interoperability through the formulation of a technical framework. These standards support the full range of architecture and engineering design requirements across the Navy.</p> <p>This activity also supports Fleet exercises and experiments through the application of distributed simulations across a wide variety of warfighting and supporting communities. Specifically, it develops and integrates appropriate M&S into Fleet Synthetic Training (FST), and develops simulation efforts to test and evolve the standards for models, interfaces, and data. It supports development of tools necessary to enable the seamless access and use of operationally relevant M&S products to support Navy training, warfare assessments and acquisition requirements.</p> <p>FY 2018 Plans:</p> <ul style="list-style-type: none">- Advance and efficiently integrate leading edge M&S capabilities in response to complex emerging threats and future warfighting environments.- Promulgate M&S Best Practices and Common Tools across DON M&S Enterprise..- Establish enterprise open architectures and standards.- Identify core models,simulations and data requiring integration.- Improve M&S networking environments to ensure labs, facilities, models, simulations, and data are persistently connectable.- Validate scenario, simulation, and threat environments that can be reused across domains and throughout the program life-cycles. <p>FY 2019 Base Plans:</p> <ul style="list-style-type: none">- Advance and efficiently integrate leading edge M&S capabilities in response to complex emerging threats and future warfighting environments.- Provide a comprehensive set of M&S capabilities and tools to support analysis, engineering, prototyping , testing, experimentation, and training to assess and address mission capability gaps and enhance interoperability.- Establish enterprise open architectures and standards.- Identify core models and simulations requiring integration.								

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<ul style="list-style-type: none"> - Improve M&S networking environments to ensure labs and facilities are persistently connectable. - Validate scenario, simulation, and threat environments that can be reused across domains and throughout the program life-cycles. - Initiate development of a Common M&S Environment - Development of standards, architectures and open interfaces will add a new focus on integrating Live Navy Aircraft/Ship/Subs/Networks with Virtual simulations and Constructive models as well cyber effects in the battlespace. - Develop M&S modules in the Naval Integrated Capabilities database that will capture current DON Core Models, Simulations, and Data. Create an accessible repository of models, standards, relevant guidance and policy that will drive down cost. Develop a technical plan for incorporation of the Architecture Management Integration Environment and persistent connectivity across Navy M&S capabilities that will enable reuse and improved response time for LVC events. - Develop reusable M&S technologies in FY19 will add the integration of the Complex threat models (ITASE, DIADs, NGTS and TMAP models) in partnership with Intelligence Centers to create a high fidelity agile threat environment reusable across programs, domains (Air, Sea, Surface, Subsurface) and communities (Analysis, Acquisition, Training and Experimentation). -Experiments, model development efforts and simulation prototypes will include cyber effects modeling, virtualization methodologies for complex tactical code and improved visualization/virtual reality to support next generation M&S supporting emergent Naval warfighting requirements. <p>FY 2019 OCO Plans: N/A</p> <p>FY 2018 to FY 2019 Increase/Decrease Statement: The funding increase from FY 2018 to FY 2019 supports investments that are required to implement standards and solutions across DON to establish foundational elements for a Navy Enterprise M&S Environment. These investments are required to implement standards and solutions across DON to reduce the development of duplicate point source proprietary solutions that are not common or reusable so DON can efficiently and effectively conduct system-of-system analysis, testing, and training in an affordable and reusable construct.</p>					
Accomplishments/Planned Programs Subtotals	4.529	5.238	7.097	0.000	7.097
C. Other Program Funding Summary (\$ in Millions) N/A					

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C. Other Program Funding Summary (\$ in Millions) Remarks D. Acquisition Strategy <p>This is a non-ACAT program. The focus of the Navy Modeling and Simulation (M&S) Office is to facilitate and enable the efficient use of M&S by minimizing duplication of M&S efforts and maximize the reuse of M&S and data.</p> E. Performance Metrics <p>This program supports efforts to define, develop, and utilize M&S technologies, standards and techniques in DON and joint programs across a wide range of disciplines and technical arenas. As such, performance metrics are specific to individual projects initiated under this program element. Representative examples of performance criteria for M&S support include the following: VV&A of deployed M&S systems to support Fleet and Force missions and assessments; degree of composability and adaptability of system architectures employed M&S systems; ability of M&S systems to replicate and permit recreation of force or system interactions that otherwise would be performed by more labor-intensive or expensive personnel, forces, or elements; degree to which M&S frameworks would permit rapid integration and employment of analytic capabilities for the analysis and documentation of warfighter missions, weapons systems or Tactics, Techniques and Procedures (TT&P); and ability of a specific M&S technology or technique to meet the requirements specified in an individual project supported by this program.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support				Project (Number/Name) 2222 / Modeling & Simulation					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DoD Support	WR	SPAWAR : Charleston, SC	0.383	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
NMSO Director	WR	SPAWAR : Charleston, SC	1.559	0.266	Jan 2017	0.282	Jan 2018	0.299	Jan 2019	-		0.299	0.000	2.406	-
NMSO Data Archiving Effort	WR	NAVAIR : Pax River, MD	0.503	0.000		0.000		0.000		-		0.000	0.000	0.503	-
DREN Connectivity	WR	SPAWAR : Charleston, SC	0.043	0.000		0.000		0.000		-		0.000	0.000	0.043	-
M & S Data Lead	WR	SPAWAR : Charleston, SC	0.740	0.000		0.000		0.000		-		0.000	0.000	0.740	-
NMSIS Web Presence	WR	SPAWAR : Charleston, SC	0.896	0.000		0.000		0.000		-		0.000	0.000	0.896	-
VV&A Standards & Support	WR	NAVAIR : Pax River	1.335	0.232	Mar 2017	0.251	Mar 2018	0.266	Mar 2019	-		0.266	0.000	2.084	-
Plans & Policies	WR	SPAWAR : Charleston, SC	1.868	0.000		0.467	Oct 2017	0.466	Oct 2018	-		0.466	0.000	2.801	-
DON Mission Level Gap Analysis	WR	NAVAIR : Pax River, MD	1.100	0.000		0.000		0.000		-		0.000	0.000	1.100	-
M&S Interopeperability Initiative	WR	NAVAIR : Pax River, MD	0.950	0.000		0.000		0.000		-		0.000	0.000	0.950	-
M&S Interopeperability Initiative	WR	SPAWAR : Charleston, SC	0.649	0.000		0.000		0.000		-		0.000	0.000	0.649	-
Navy Training Test Harness	WR	NAWC TSD : Orlando, FL	0.375	0.000		0.000		0.000		-		0.000	0.000	0.375	-
CSP for NTI	WR	NAWC TSD : Olando, FL	0.247	0.000		0.000		0.000		-		0.000	0.000	0.247	-
Navy STORM	MIPR	NAWC : Pax River, MD	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-
USMC STORM	MIPR	USAF : Triangle, VA	0.250	0.250	Mar 2017	0.000		0.000		-		0.000	0.000	0.500	-
M&S Services	WR	SPAWAR : Charleston, SC	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-

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Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Data Assistant	WR	SPAWAR : Charleston, SC	0.918	0.000		0.000		0.000		-		0.000	0.000	0.918	-
Navy VV&A Lead	WR	NAVAIR : Pax River, MD	0.428	0.000		0.000		0.000		-		0.000	0.000	0.428	-
Enterprise Level SBD M&S Components	WR	Various Wafare Centers : Not Specified	0.000	0.814	Oct 2016	0.494	Oct 2017	0.865	Oct 2018	-		0.865	0.000	2.173	-
LDUVV SBD Implementation Net-Centric Systems Test	WR	Various Wafare Centers : Not Specified	0.000	0.430	Oct 2016	0.000		0.000		-		0.000	0.000	0.430	-
Net-Centric Systems Test Evaluation Capability Module -NECM	WR	NAVAIR : Pax River, MD	0.000	0.142	Oct 2016	0.150	Oct 2017	0.150	Oct 2018	-		0.150	0.000	0.442	-
Common Development Environment	WR	NAVAIR : Pax River, MD	0.000	0.519	Oct 2016	0.495	Oct 2017	0.731	Oct 2018	-		0.731	0.000	1.745	-
Architecture Framework	WR	NAVAIR : Pax River, MD	0.000	0.200	Oct 2016	0.212	Oct 2017	0.212	Oct 2018	-		0.212	0.000	0.624	-
MBSE SYSML Reference Architecture Standard	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.212	Oct 2017	0.212	Oct 2018	-		0.212	0.000	0.424	-
AMIE - Architecture Management Integration Environment	WR	NAVAIR : Pax River, MD	2.159	0.302	Feb 2017	0.205	Feb 2018	0.200	Feb 2019	-		0.200	0.000	2.866	-
M&S Integration Analysis	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.159	Oct 2017	0.159	Oct 2018	-		0.159	0.000	0.318	-
Common Development Enviroment Integration	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.000		0.108	Oct 2018	-		0.108	0.000	0.108	-
Architecture Integration	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.318	Oct 2017	0.742	Oct 2018	-		0.742	0.000	1.060	-

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Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
NAVAL - LIFT	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.212	Oct 2017	0.367	Oct 2018	-		0.367	0.000	0.579	-
M&S Visulation	WR	Various Wafare Centers : Not Specified	0.000	0.000		0.212	Oct 2017	0.318	Oct 2018	-		0.318	0.000	0.530	-
Subtotal			14.903	3.155		3.669		5.095		-		5.095	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
RDA POC	WR	NAVAIR : Pax River, MD	1.349	0.189	Jan 2017	0.358	Jan 2018	0.380	Jan 2019	-		0.380	0.000	2.276	-
RDA IDS (#1&3)	WR	Various Wafare Centers : Not Specified	1.710	0.353	Jan 2017	0.227	Jan 2018	0.238	Jan 2019	-		0.238	0.000	2.528	-
Training IDS (#1)	WR	Various Wafare Centers : Not Specified	1.401	0.214	Mar 2017	0.231	Mar 2018	0.246	Mar 2019	-		0.246	0.000	2.092	-
Training IDS (#2)	WR	SPAWAR : Charleston, SC	0.951	0.000		0.000		0.000		-		0.000	0.000	0.951	-
Analysis IDS (#1)	WR	SPAWAR : Charleston, SC	0.000	0.000		0.000		0.233	Mar 2019	-		0.233	0.000	0.233	-
Analysis IDS (#2)	WR	SPAWAR : Charleston, SC	0.058	0.000		0.000		0.000		-		0.000	0.000	0.058	-
IDS Training and Coordination	WR	SPAWAR : Charleston, SC	0.044	0.000		0.000		0.000		-		0.000	0.000	0.044	-
USMC IDS	WR	MCCDC : Quantico, VA	0.670	0.000		0.000		0.000		-		0.000	0.000	0.670	-
MOVES	WR	NPS : Monterrey, CA	3.974	0.300	Jan 2017	0.314	Jan 2018	0.318	Jan 2019	-		0.318	0.000	4.906	-

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RDA M&S Forum	WR	NAVAIR : Pax River, MD	2.201	0.163	Jan 2017	0.174	Jan 2018	0.173	Jan 2019	-		0.173	0.000	2.711	-
NMSO Technical Support	WR	SPAWAR : Charleston, SC	0.483	0.000		0.000		0.000		-		0.000	0.000	0.483	-
Simulated Shipboard FMVS	WR	NWDC : Norfolk, VA	0.365	0.000		0.000		0.000		-		0.000	0.000	0.365	-
M&S Officer Postgraduate Ed	WR	SPAWAR : SSC-LANT	0.852	0.000		0.000		0.000		-		0.000	0.000	0.852	-
M&S Workforce Coordinator	WR	SPAWAR : SSC-PAX	0.000	0.000		0.000		0.149	Oct 2018	-		0.149	0.000	0.149	-
Subtotal			14.058	1.219		1.304		1.737		-		1.737	0.000	18.318	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Standard Interfaces for Virtual World	WR	NAVAIR : Pax River, MD	2.347	0.155	Feb 2017	0.265	Feb 2018	0.265	Feb 2019	-		0.265	0.000	3.032	-
Semantic and Structural Metedata Schema	WR	NAVAIR : Pax River, MD	0.562	0.000		0.000		0.000		-		0.000	0.000	0.562	-
Semantic and Structural Metedata Schema	WR	SPAWAR : Charleston, SC	0.289	0.000		0.000		0.000		-		0.000	0.000	0.289	-
Tactical Operational Software Environment (TOSEE)	WR	NAVAIR : TSD, Orlando	0.650	0.000		0.000		0.000		-		0.000	0.000	0.650	-
Cross Cultural Competence in OPS Environment	WR	NAVAIR : TSD, Orlando	0.350	0.000		0.000		0.000		-		0.000	0.000	0.350	-
Framework for Assessing Cost and Technology (FACT)	WR	MCCDC : Quantico, VA	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy												Date: February 2018			
Appropriation/Budget Activity 1319 / 7						R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support				Project (Number/Name) 2222 / Modeling & Simulation					
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Intergrated Air/Missile Defense IAMD	WR	NAVAIR : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Measuring Immersion Training	WR	MCCDC : Quantico, VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
VVA of Real Time Propagation Loss Model	WR	ONR : Arlington, VA	0.588	0.000		0.000		0.000		-		0.000	0.000	0.588	-
Navy M&S Education Program	WR	NAVAIR : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Sensor Federate	WR	ONR : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
Contracting Language for M&S	WR	NAVAIR : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
VCE for CPD&T	MIPR	WHS : Arlington, VA	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	-
Navy VV&A Lead	WR	NAVAIR : Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	-
LVC Training Enviroment Tech Advisor	WR	NAVSEA JHU : Wash. DC	0.567	0.000		0.000		0.000		-		0.000	0.000	0.567	-
Human Anatomy Motion Tracking & Display	WR	MARCORSYSCOM : Arlington, VA	0.091	0.000		0.000		0.000		-		0.000	0.000	0.091	-
CapabilityModule Enhancement	WR	NAVAIR : Pax River	0.120	0.000		0.000		0.000		-		0.000	0.000	0.120	-
Subtotal			6.364	0.155		0.265		0.265		-		0.265	0.000	7.049	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			35.325	4.529		5.238		7.097		-		7.097	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 7

R-1 Program Element (Number/Name)

PE 0308601N / Modeling & Simulation
Support

Project (Number/Name)

2222 / Modeling & Simulation

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Proj 2222																												
Incorporate Best Practices for Contracting M&S in DON																												
Publish M&S Contracting Best Practices Guide																												
Change Culture through Education, Outreach and Training																												
Host Summit for Face to Face Workshop on Issues and Reuse																												
Incorporate Learning courses in SYSCOM Workforce Education																												
Coordinate across DON and other Services/ DoD to develop an M&S Support Plan																												
Establish draft MSSP Policy among the Services/DoD																												
Draft a Common Digital Environment																												
Coordinate quarterly Fleet Training Integration Panels																												
Plan Quarterly Fleet Training Requirements Management Group																												
Conduct Forums across all the Communities																												
JBUS AIME Integration to fix future LVC training integration issues																												
Aegis, Development Environment_AIME integration																												
Identify NR&DE capabilities for AMIE integration and conduct integration																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy																								Date: February 2018													
Appropriation/Budget Activity 1319 / 7										R-1 Program Element (Number/Name) PE 0308601N / Modeling & Simulation Support										Project (Number/Name) 2222 / Modeling & Simulation																	
										FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Develop reference architecture and implementation for a common M&S engineering frameworks																																					
Develop and deploy a Virtual Collaborative Environment in response to Enterprise Requirements																																					
Identify and integrate MBSE tools and best practices																																					
Update Enterprise level Naval Models and Simulations to ensure accurate operational representation and increased validity																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy			Date: February 2018
Appropriation/Budget Activity 1319 / 7	R-1 Program Element (Number/Name) PE 0308601N / <i>Modeling & Simulation Support</i>	Project (Number/Name) 2222 / <i>Modeling & Simulation</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 2222				
Incorporate Best Practices for Contracting M&S in DON	1	2017	4	2017
Publish M&S Contracting Best Practices Guide	1	2017	4	2017
Change Culture through Education, Outreach and Training	1	2017	4	2019
Host Summit for Face to Face Workshop on Issues and Reuse	1	2017	4	2019
Incorporate Learning courses in SYSCOM Workforce Education	1	2017	4	2018
Coordinate across DON and other Services/DoD to develop an M&S Support Plan	1	2017	4	2018
Establish draft MSSP Policy among the Services/DoD	1	2017	4	2018
Draft a Common Digital Environment	1	2017	4	2023
Coordinate quarterly Fleet Training Integration Panels	1	2017	4	2023
Plan Quarterly Fleet Training Requirements Management Group	1	2017	4	2023
Conduct Forums across all the Communities	1	2017	4	2023
JBUS AIME Integration to fix future LVC training integration issues	1	2017	4	2018
Aegis, Development Environment_AIME integration	1	2017	4	2018
Identify NR&DE capabilities for AMIE integration and conduct integration	1	2017	4	2020
Develop reference architecture and implementation for a common M&S engineering frameworks	1	2017	4	2023
Develop and deploy a Virtual Collaborative Environment in response to Enterprise Requirements	1	2017	4	2023
Identify and integrate MBSE tools and best practices	1	2017	4	2023
Update Enterprise level Naval Models and Simulations to ensure accurate operational representation and increased validity	1	2017	4	2023