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Exhibit R-2, RDT&E Budget Item Justification									DATE: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07					R-1 ITEM NOMENCLATURE Defense Information Infrastructure Engineering & Integration/PE 0302019K					
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Total PE Cost: PE 0302019K	3.986	4.777	5.316	5.521	5.513	5.610	5.740	5.871	Contg	Contg
DII Systems Engineering and Support/T62	1.368	.746	.877	.956	.970	.987	1.010	1.032	Contg	Contg
Technology Advancement/A19	.345	0*	0	0	0	0	0	0	Contg	Contg
Modeling & Simulation/E62	0	4.031**	4.439	4.565	4.543	4.623	4.730	4.839	Contg	Contg
Special Projects/T64	.986	0***	0	0	0	0	0	0	Contg	Contg
CINC/JTF C4 Integration/T66	1.287	0****	0	0	0	0	0	0	0	1.287

A. Mission Description and Budget Item Justification: This program element funds efforts involving the following areas: the development and fielding of the Defense Information Infrastructure (DII) Common Operating Environment (COE), engineering support of the DII including resolution of critical interoperability and technical integration issues, and the assessment of C4I initiatives that reside on the DII COE to ensure compatibility, interoperability and technical integration. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

* Effective FY 1999, this project has been incorporated into Project E62, Modeling and Simulation.

** This project is not a new start. It combines efforts previously performed under Project E61, MILSATCOM, in PE 0303126K and Project A19, Technology Advancement, in PE 0302019K.

*** Effective FY 1999, this project has been realigned to PE 0303131K, Minimum Essential Emergency Communications Network (MEECN), Project T64.

**** Beginning FY 1999, this project was converted from RDT&E to O&M.

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RDT&E, Defense-Wide/07	Defense Information Infrastructure Engineering & Integration/PE 0302019K				
B. <u>Program Change Summary:</u>					
	<u>FY 98</u>	<u>FY 99</u>	<u>FY 00</u>	<u>FY 01</u>	
Previous President's Budget (FY 1999)	4.119	4.975	5.403	5.618	
Appropriated Value	4.721	4.975			
Adjustments to Appropriated Value	-.735	-.198			
Adjustments to Budget Year Since FY 1999 President's Budget			-.087	-.097	
Current Budget Submit/President's Budget (FY 2000)	3.986	4.777	5.316	5.521	
Change Summary Explanation:					
FY 1998 change due to undistributed congressional adjustments to Defense-wide RDT&E appropriation and below threshold reprogramming.					
FY 1999 change due to undistributed congressional adjustments to Defense-wide RDT&E appropriation.					
FY 2000 and FY 2001 change due to revised inflation rates.					
Note: Project T62, DII Systems Engineering and Support was formerly titled Defense-wide C3 Architecture and Planning.					
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Exhibit R-2a, RDT&E Project Justification									DATE: February 1999	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NAME AND NUMBER				
RDT&E, Defense-Wide/07		DII Engineering & Integration/0302019K				Modeling & Simulation/E62				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	0	4.031	4.439	4.565	4.543	4.623	4.730	4.839	Contg	Contg
<p>A. <u>Mission Description and Budget Item Justification:</u> The rapid evolution of the global military environment is driving a major evolution of the DOD force structure and military operations, requiring greater flexibility to meet the global warfighting requirements to rapidly project forces anywhere in the world. This effort supports the DOD communications planning and investment strategy for the successful deployment of DOD information systems by performing a broad spectrum of activities in support of C4I programs. DISA has the lead in DOD for providing modeling and simulation to DOD decision makers—from the OSD level to the war fighter—with services and a suite of tools capable of identifying key decision points that impact DOD command and control information systems. This work is essential to achieve the DISA goal of quality information services at an affordable cost through a deliberate decision management process. These services and tools will: 1) provide modeling and analysis support to the key DISA programs and initiatives of DMS, DISN and EC/EDI; 2) support initial INFOSEC/IW simulation efforts to give DISA the capability to determine the impact of IW attacks on the DII; 3) provide modeling and simulation assessment of the DII's ability to support CINC's, JCS, Services, and other Federal agencies' current and emerging C4ISR mission driven information requirements; 4) enhance the functionality of GOTS tools to engender an integrated environment in support of the modeling and simulation efforts of DISN, DMS, IW, GCSS, GCCS, and the DII; 5) investigate methods linking these models with other GOTS used in information network modeling, design and analysis; 6) explore the available COTS tools appropriate for developing models that will be used for sizing and performance assessment of information system architecture; and 7) stimulate GCCS through induction of combat models and simulations.</p> <p><u>FY1999 Plans:</u></p> <ul style="list-style-type: none"> o DISA Program Manager Support provides modeling and analysis support to the key DISA programs and initiatives of DMS, GCCS, DISN and Electronic Commerce. (\$1,298K) (1st Qtr - 4th Qtr) o Warfighter and CINC Support provides modeling and simulation assessment to evaluate communications and related systems to support CINC's, JCS, Services, and other Federal agencies' current and emerging C4ISR mission driven information requirements. (\$1,635K) (1st Qtr - 4th Qtr) 										
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RDT&E, Defense-Wide/07		DII Engineering & Integration/0302019K				Modeling & Simulation/E62				
COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	0	4.031	4.439	4.565	4.543	4.623	4.730	4.839	Contg	Contg
<p>o Modeling and Simulation Tools provides DOD decision makers--from the OSD level to the warfighter--with a suite of tools capable of identifying key decision points required to carry out their mission in the most effective way. (\$1,098K) (1st Qtr - 4th Qtr).</p> <p>o Total \$4.031M</p> <p><u>FY2000 Plans:</u></p> <p>o DISA Program Manager Support will provide (a) DISN performance assessments for the integrated switching and transmission and recommendations for DISN performance improvement; (b) build flexibility into models to support EDS and Public Key Infrastructure (PKI); and (c) review systems design architecture to enhance DMS capability and use the DMS messaging model to evaluate DMS engineering decisions; (d) develop phase III of GCSS for GCCS integration with exercises. (\$1,407K) (1st Qtr - 4th Qtr).</p> <p>o Warfighter and CINC Support will (a) provide ongoing development and executive oversight of Joint C2 representations and ensure Joint Simulation System (JSIMS) interoperability with GCCS by Initial Operational Capability (IOC); (b) Configuration Management plans for Joint Warfare System (JWARS), JSIMS, monitor JCS/J8 instructions and notices providing USAF Expeditionary Force Experiment (EFX) Assessment Support and USCENTCOM "Internal Look" Exercise Support; and (c) Assessment of DII/DISN ability to support USSOUTHCOM during execution of a Major Theater War. (\$1,773K) (1st Qtr - 4th Qtr).</p> <p>o Modeling and Simulation (M&S) Tools will provide evaluation of communication and related systems effects on military campaign outcomes by (a) ensuring availability of network models commensurate with the evolving DISN and technology; (b) enhancing M&S tools to support DISA Vision 2010 objective; (c) enhancing M&S capability to reflect the evolving DISN network and changing network technology development and incremental builds to an integrated M&S tool based on COTS products; (d) model "end-to-end" tactical and strategic DISN network; and (e) support business case studies; (f) perform performance assessment for the DISN Asynchronous Transfer Mode (ATM) network performance modeling and assessment. (\$1,259K) (1st Qtr - 4th Qtr).</p> <p>o Total \$4.439M</p>										

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COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
Project Cost	0	4.031	4.439	4.565	4.543	4.623	4.730	4.839	Contg	Contg
<p><u>FY2001 Plans:</u></p> <ul style="list-style-type: none"> o DISA Program Manager Support will: (a) continue DISN performance assessments for the integrated switching and transmission and conduct survivability modeling assessments of the DISN Bandwidth Manager topology; (b) provide system performance assessment and projections based on requirement and technology changes and provide analysis and projection of component performance, specifically the Electronic Commerce Processing Nodes; (c) initiate the collection/analysis of operational system performance and configure test scenarios, and (d) continue GCCS integration with CINC exercises and refine SIMLINK and GTSS based on CINC requirements. (\$1,449K) (1st Qtr - 4th Qtr). o Warfighter and CINC support will provide: (a) post-IOC development and executive oversight of Joint C2 representation and C2/JSIMS interfaces; and (b) exercise monitor Configuration Management Plans for JWARS. (\$1,825K) (1st Qtr - 4th Qtr). o Modeling and simulation tools will: (a) continue to enhance M&S capability to reflect the evolving DISN network; (b) continue development and incremental builds to an integrated M&S tool based on COTS products end-to-end; (c) enhance existing COTS M&S tools to support network performance modeling and assessment, reflecting DISN user requirements; (d) evaluate the functionality of tools for integrating C4I concepts into network modeling/analyses/assessments; (e) enhance M&S tools to support DISA Vision 2010 objectives. (\$1,291K) (1st Qtr - 4th Qtr). o Total \$4.565M 										

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COST (in millions)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost																
Project Cost	0	4.031	4.439	4.565	4.543	4.623	4.730	4.839	Contg	Contg																
<p>B. <u>Other Program Funding Summary:</u> O&M funding</p> <table border="0"> <thead> <tr> <th><u>FY1999</u></th> <th><u>FY2000</u></th> <th><u>FY2001</u></th> <th><u>FY2002</u></th> <th><u>FY2003</u></th> <th><u>FY2004</u></th> <th><u>FY2005</u></th> <th><u>To Complete</u></th> </tr> </thead> <tbody> <tr> <td>4.415</td> <td>4.792</td> <td>5.192</td> <td>5.296</td> <td>5.471</td> <td>5.639</td> <td>5.811</td> <td>Contg</td> </tr> </tbody> </table> <p>C. <u>Acquisition Strategy:</u> Work will continue under existing contract vehicles.</p> <p>D. <u>Schedule Profile</u></p> <p>FY99 - M&S support to the key DISA programs, 1st Qtr - 4th Qtr Modeling and simulation assessment to support CINC's, JCS, Services, and other Federal agencies, 1st Qtr - 4th Qtr Identify key decision points for decision makers from the OSD level to the warfighter, 1st Qtr - 4th Qtr</p> <p>FY00 - Support key DISA programs, (a) DISN performance assessments and (b) support to EDA and PKI, 1st Qtr - 4th Qtr Support JWARS and JSIMS IMS 1st Qtr - 4th Qtr Identify key decision points by ensuring availability of network models, 1st Qtr - 4th Qtr</p> <p>FY01 - Support to the key DISA programs, especially integrated switching and transmission, 1st Qtr - 4th Qtr Provide post-IOC development and oversight of Joint C2 representation and C2/JSIMS interfaces, 1st Qtr - 4th Qtr Enhance M&S capability to reflect the evolving DISN network, 1st Qtr - 4th Qtr</p> <p>FY02 - FY05 Continue to provide M&S support to the key DISA programs, 1st Qtr - 4th Qtr Continue to provide M&S assessment to CINC's, JCS, Services, and other Federal agencies, 1st Qtr - 4th Qtr Continue to identify key decision points for decision makers, 1st Qtr - 4th Qtr</p>											<u>FY1999</u>	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>To Complete</u>	4.415	4.792	5.192	5.296	5.471	5.639	5.811	Contg
<u>FY1999</u>	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>	<u>To Complete</u>																			
4.415	4.792	5.192	5.296	5.471	5.639	5.811	Contg																			

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Exhibit R-3 Cost Analysis										DATE: February 1999		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER					
RDT&E, Defense-Wide/07			DII Engineering & Integration/0302019K				Modeling & Simulation/E62					
Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Modeling & Simulation	FFRDC	MITRE, McLean, Va.		1.895	1/99	1.918	1/00	1.941	1/01	Contg	Contg	10.605
	CPFF	SAIC Arlington, Va.		1.636	3/99	1.979	3/00	2.066	3/01	Contg	Contg	17.638
		Other		.500	12/98	.542	12/99	.558	12/00	Contg.	Contg	3.896
Subtotal Product Development				4.031		4.439		4.565		Contg	Contg	
Total Costs				4.031		4.439		4.565		Contg	Contg	

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