

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)	DATE February 2000
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BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605706A Materiel Systems Analysis	PROJECT M541
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COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
M541 Materiel Systems Analysis	9557	8783	8737	6673	6518	6370	6622	Continuing	Continuing

A. Mission Description and Justification: This program element funds the Army Materiel Systems Analysis Activity's (AMSAA) primary mission of materiel systems analysis. AMSAA is the Army's center for item/system level performance analysis and certified data. In accomplishing its materiel systems analysis mission, AMSAA analyzes the performance and combat effectiveness of conceptual, developmental, and existing systems. Unique models and methodologies have been developed to predict critical performance variables, such as, weapon accuracy, target acquisition, rate of fire, probability of inflicting catastrophic damage, and system reliability. AMSAA is responsible for the generation of these performance and effectiveness measures and for ensuring their standard use across Army and Joint studies. AMSAA conducts and supports various systems analyses, such as: analyses of alternatives (AoAs), system cost/performance tradeoffs, early technology tradeoffs, weapons mix analyses, and requirements analyses. These analyses are used by Army and Department of Defense (DoD) leadership in making acquisition, procurement, and logistics decisions in order to provide quality equipment and procedures to the soldiers. AMSAA's modeling and simulation (M&S) capabilities support the development, linkage, and accreditation of live, virtual, and constructive simulations, and provide unique tools that support systems analysis of individual systems and the combined-arms environment. AMSAA is the Army's executive agent for the verification, validation, and accreditation (VV&A) of item level performance models. In this role, AMSAA assists model developers with the development and execution of V&V plans to ensure new models and simulations faithfully represent actual systems. As the Army's center for materiel systems analysis, AMSAA provides the technical capability to support Army and DoD decision-makers throughout the entire materiel acquisition process in responding to analytic requirements across the full spectrum of materiel system commodity areas. This PE/Project funds the salaries of civilian employees assigned to the materiel systems analysis mission.

FY 1999 Accomplishments:

- 9557 Developed and certified system performance data for U.S. and foreign systems used to support Army and Joint AoAs, force structure studies, and theater level studies. Examples of programs where decisions were influenced: Future Scout and Cavalry System (FSCS), Comanche, Crusader, and Digitization Brigade and Below (DB2). Analyzed the performance and combat effectiveness of materiel systems and tech base programs in support of HQDA, AMC, PEOs/ PMs and R&D Centers. Included were conduct of and support to: AoAs, system cost/performance tradeoffs, early technology tradeoffs, weapons mix analyses, requirements analyses, technology insertion, and technology base analyses. Examples of programs where decisions were influenced: Future Combat Vehicle (FCV), FSCS, Crusader, High Mobility Multipurpose Wheeled Vehicle (HMMWV), and Grizzly. Developed, modified, and maintained item level methodologies, models, and simulations to assist in the conduct of systems analysis. Examples of efforts included: Ground Wars Model, Active Protection System/Counter-Active Protection System (APS/CAPS) methodologies, and One Semi-Automated Force (OneSAF). Performed verification and validation of item level performance models and methodologies. Funding supported approximately 100 civilians to include salary, benefits, and all other support costs (e.g., training, TDY, etc.).

Total 9557

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FY 2000 Planned Program:		
<ul style="list-style-type: none"> • 8734 	Develop and certify system performance data for U.S. and foreign systems to be used to support Army and Joint AoAs, force structure studies and theater level studies. Examples of programs where decisions will be influenced: Initial Brigade, FSCS, Comanche, and Crusader. Analyze the performance and combat effectiveness of materiel systems and tech base programs in support of HQDA, AMC, PEOs/ PMs and R&D Centers. Included are conduct of and support to: AoAs, system cost/performance tradeoffs, early technology tradeoffs, weapons mix analyses, requirements analyses, technology insertion, and technology base analyses. Examples of programs where decisions will be influenced: Land Warrior, FCV, FSCS, and Comanche. Develop, modify, and maintain item level methodologies, models, and simulations to assist in the conduct of systems analysis. Examples include: Ground Wars Model, APS/CAPS methodology & model development, and infantry model development. Perform verification and validation of item level performance models and methodologies. Funding will support approximately 88 civilians to include salary, benefits, and all other support costs (e.g., training, TDY, etc.).	
<ul style="list-style-type: none"> • 49 	Small Business Innovative Research/Small Business Technology Transfer Program (SBIR/STTR)	
Total	8783	
FY 2001 Planned Program:		
<ul style="list-style-type: none"> • 8737 	Develop and certify system performance data for U.S. and foreign systems to be used to support Army and Joint AoAs, force structure studies, and theater level studies. Examples of programs where decisions will be influenced: FCV, FSCS and Comanche. Analyze the performance and combat effectiveness of materiel systems and tech base programs in support of HQDA, AMC, PEOs/ PMs and R&D Centers. Included are conduct of and support to: AoAs, system cost/performance tradeoffs, early technology tradeoffs, weapons mix analyses, requirements analyses, technology insertion, and technology base analyses. Examples of programs where decisions will be influenced: FCV, FSCS, and Comanche. Develop, modify, and maintain item level methodologies, models, and simulations to be used in the conduct of systems analysis. Perform verification and validation of item level performance models and methodologies. Funding will support approximately 82 civilians to include salary, benefits, and all other support costs (e.g., training, TDY, etc.).	
Total	8737	

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B. Program Change Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (<u>FY 2000/2001 PB</u>)	9617	8796	8718
Appropriated Value	9711	8796	
Adjustments to Appropriated Value			
a. Congressional General Reductions	-94		
b. SBIR / STTR	-61		
c. Omnibus or Other Above Threshold Reductions		-7	
d. Below Threshold Reprogramming	+41		
e. Rescissions	-40	-6	
Adjustments to Budget Years Since <u>FY 2000/2001 PB</u>			+19
Current Budget Submit (<u>FY 2001 PB</u>)	9557	8783	8737