

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604645A - Armored Systems Modernization (ASM)-Eng. Dev.

COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	2115	0	59860	399887	771353	1786210	2033291	0	5059901
175 MOFA FSD	2115	0	0	0	0	0	0	0	9300
470 FUTURE COMBAT SYSTEM - EMD	0	0	59860	399887	771353	1786210	2033291	0	5050601

A. Mission Description and Budget Item Justification: This program element supports the Future Combat Systems (FCS) which is the centerpiece of the Army's strategy to achieve the Objective Force. FCS will demonstrate rapid unit deployment, capable of maximum lethality and survivability. FCS will feature easy recapitalization, embedded training, increased mobility, and drastically reduced supportability requirements. FCS is the networked system of systems that will serve as the core building block within all maneuver Unit of Action (UA) echelons to develop overmatching combat power, sustainability, agility, and versatility necessary for full spectrum military operations. This system supports the Objective transition path of the Transformation Campaign Plan(TCP).

<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	2180	0	0
Appropriated Value	2200	0	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	0	0
b. SBIR/STTR	-65	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	0	0	0
e. Rescissions	-20	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	59860
Current Budget Submit (FY 2003 PB)	2115	0	59860

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FY03 funding increased due to FCS System Development and Demonstration (SDD) program acceleration.

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BUDGET ACTIVITY 5 - Engineering and manufacturing development	PE NUMBER AND TITLE 0604645A - Armored Systems Modernization (ASM)- Eng. Dev.						PROJECT 470		
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
470 FUTURE COMBAT SYSTEM - EMD	0	0	59860	399887	771353	1786210	2033291	0	5050601

A. Mission Description and Budget Item Justification: This project funds the System Development and Demonstration (SDD) of Future Combat Systems (FCS), a DARPA/Army collaborative program established by an MOA signed in February 2000. FCS is the centerpiece of the Army's strategy to achieve the Objective Force.

This project supports the detailed design, integration, and demonstration necessary to begin implementation of advanced architectures and to build prototypes, to include detailed architectures for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR); software and hardware; and plans for logistics support, environmental issues, training, and prototype production (e.g. long lead items, processes). FCS is the networked system of systems that will serve as the core building block within all maneuver Unit of Action echelons to develop overmatching combat power, sustainability, agility, and versatility necessary for full spectrum military operations. It is comprised of a family of advanced, networked space-, air- and ground-based maneuver, maneuver support, and sustainment systems that may include manned and unmanned platforms. FCS further includes suite of information technologies, RSTA networks, and battle command systems that will enable the tactical unit to operate at a level of synchronization heretofore unachievable. The largest FCS systems will be lighter than current mechanized systems with each element possessing common or multi-functional characteristics. FCS units must achieve all organizational characteristics in the Army Vision. Many FCS platforms will be multifunctional and modular, combining two or more tactical functions such as assault and indirect fires, air defense, forms of RSTA, network communications, battle command and mobility support. Other platforms such as small, unmanned aerial and ground vehicle may be single function.

FCS will enable improved situational understanding to allow Objective Force units to see first, understand first, act first, and finish decisively. FCS is not a battalion. It is a networked system of systems manned by soldiers and fighting teams of teams. It enables the small tactical units in the Unit of Action (UA) to fight: (1) dismounted enabled by mounted; (2) mounted enabled by dismounted; (3) on occasion, dismounted; and, (4) on occasion, mounted. It significantly enhances the overall force effectiveness of UA beyond that achievable today. To satisfy the Army's urgent capability requirement and to keep up with the pace of technology, the FCS uses a block upgrade concept. Component and Technology Development and System Development and Demonstration for subsequent blocks of capability will be ongoing throughout system development and fielding.

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PROJECT

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FY 2001 Accomplishments:

SDD project not funded.

FY 2002 Planned Program

SDD project not funded.

FY 2003 Planned Program

- 26560 System Development and Demonstration (SDD) Lead System Integration (LSI) detailed architectures and detailed system design effort.
- 26400 Systems engineering modeling and simulation and software integration and application.
- 3100 Extension of the Integrated Data Environment (classified and unclassified), support for core, matrix and program support contractors, and other government agencies.
- 2300 Studies designed to support CAIV (Cost As An Independent Variable) decisions on material development approaches impacts on system of systems force effectiveness.
- 1500 Systems Engineering and Technical Assistance

Total 59860

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<u>B. Other Program Funding Summary</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
PE 0602601A/HH7	7681	19475	0	0	0	0	0	0	27156
PE 0603005A/53G	0	110587	125147	116112	113194	0	0	0	465040

C. Acquisition Strategy: In September 2001, the Army Leadership synchronized the DARPA/Army efforts to focus on Initial Operational Capability in FY10. This refined direction targets MS B in FY03, transition of program leadership from DARPA to the Army, and initiation of the SDD phase at that time. The Army Leadership approved the Draft Mission Need Statement on 25 Oct 01 clearing the way for continued work in the Concept and Technology Development phase and clarifying requirements to be fulfilled by FCS during the SDD and production phase. In February 2002, DARPA will select one team as a lead systems integrator (LSI). The Acquisition Strategy will be presented to the MDA for approval prior to MS B.

<u>D. Schedule Profile</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Mission Needs Statement		1Q					
Milestone B			3Q				

ARMY RDT&E COST ANALYSIS(R-3)

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PROJECT
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Detailed System Design	CPAF	TBD - Pending FY02 LSI Award	0	0		0		26560	3Q	0	26560	0
b . System Engineering Modeling and Simulaiton	CPAF	TBD - Pending FY02 LSI Award	0	0		0		26400	3Q	0	26400	0
Subtotal:			0	0		0		52960		0	52960	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

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Dev.

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Experiments	FFP	TBD	0	0		0		800	3Q	0	800	0
Subtotal:			0	0		0		800		0	800	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Integrated Data Environment, Core Program Support and OGA's	Various	TBD	0	0		0		2300	3Q	0	2300	0
b . Studies	FFP	John Hopkins, Carnegie Mellon, IDA, MITRE, Sandia	0	0		0		2300	3Q	0	2300	0
c . SETA Contracts	FFP	Booze-Allen Hamilton, Camber, Warren SETA Support	0	0		0		1500	3Q	0	1500	0
Subtotal:			0	0		0		6100		0	6100	0

Project Total Cost:			0	0		0		59860		0	59860	0
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