

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604801A - Aviation - Eng Dev

PROJECT

C45

COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C45	AIRCREW INTEGRATED SYS-ED	2979	3344	2378	2292	2290	2517	2613	Continuing	34476

A. Mission Description and Budget Item Justification: Project DC45 - Air Warrior System Development and Demonstration: This project provides Engineering Development programs, to include Future Force Warrior, with improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness and facilitates full-spectrum dominance of the Army Transformation aircraft including the RAH-66 Comanche, AH-64 Apache/Longbow, CH-47 Improved Cargo Helicopter, and the UH/HH-60A/L/M Black Hawk. These programs include soldier systems and equipment which are unique and necessary for the sustainment, survivability, and performance of Army aircrews and troops on the future integrated battlefield. The Air Warrior program will provide the aircrew with a systems approach to chemical and biological (CB) protection, noise protection, three-dimensional audio and external audio capability, microclimate conditioning, crash and post-crash survivability, concealment and environmental protection, ballistic protection, night vision capability and heads-up display, directed energy eye protection and flame/heat protection. Specifically, Air Warrior will enable the Army Aviation Warfighter to meet the approved Operational Requirements Document mission length of 5.3 hours, as opposed to the 1.6 hours of mission capability that exists today with aviators in full chemical/biological protective gear. Preplanned block improvements integrating new technologies into the Air Warrior ensemble will continue to enhance and maximize aircrew mission performance, comfort, aircrew station interface, safety, and survivability. These funds also resource improved laser protection against emerging new threat systems and product improvement of existing helmets to improve performance and increased commonality. The Retinal Scanning Display (RSD) effort develops RSD technology for incorporation into helmet-mounted displays of Army aircrews. Maximum advantage will be taken of simulation to reduce program technical risk through early user evaluation and to reduce program design and test cost and schedules. This project does not duplicate any aircraft platform program efforts. Both joint and service independent efforts continue to be pursued under the scope of this project. This system supports the Future Force transition path of the Transformation Campaign Plan (TCP).

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Complete Air Warrior Block 1 ensemble System Development and Demonstration and begin the integration of preplanned Air Warrior Block 2 improvements.	2550	0	0
Continue the integration of preplanned Air Warrior Block 2 improvements.	0	2258	2378
Evaluate integrated technologies for the development of high level ballistic protection for aviators.	429	992	0
Small Business Innovative Research/Small Business Technology Transfer Programs.	0	94	0
Totals	2979	3344	2378

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B. Program Change Summary

	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	3481	2379	2390
Current Budget (FY 2005 PB)	2979	3344	2378
Total Adjustments	-502	965	-12
Congressional program reductions		-32	
Congressional rescissions	-51		
Congressional increases	500	1000	
Reprogrammings	-853	-3	
SBIR/STTR Transfer	-98		
Adjustments to Budget Years			-12

FY2004: \$1.0 million Congressional plus-up for Advanced Ballistic Protection.

C. Other Program Funding Summary

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
RDTE, A PE 0603801A PROJ DB45 - ACIS AD	4277	7290	2841	3408	3409	3487	3580	Continue	Continue
Aircraft Procurement, Army SSN AZ3110 - ACIS	14956	32848	28609	29477	34098	41343	38163	Continue	Continue

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<p><u>D. Acquisition Strategy:</u> An Air Warrior Program Definition and Risk Reduction (PDRR) development contract was awarded in FY 1997 to perform a functional requirements analysis. Air Warrior was approved to proceed into the Engineering and Manufacturing Development in 1st Quarter, FY 1999. A combined government and contractor team developed Air Warrior components and integrated those components into a Block 1 Air Warrior system. After a successful Milestone C decision, production contracts were awarded in FY 2003 for procurement of the Block 1 Air Warrior system. Spiral development, integrating joint and new technologies as improvements to the Air Warrior system, began in FY 2002. These efforts include electronic data management, wireless communications, body armor, modular integrated helmet display systems with increased nuclear, ballistic and laser eye protection, improved Soldier environmental control systems, waste management, and other program integration.</p>		

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Air Warrior Development	CPFF	Various	17697	1747	2Q	1843	1Q	1806	1Q	Continue	23093	Continue
b . Evaluate integrated technologies for high level ballistic protection for aviators	CPFF	Plainsman, Inc., Auburn, AL	0	358	2Q	800	2Q	0		0	1158	358
Subtotal:			17697	2105		2643		1806		Continue	24251	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Matrix Support	MIPR and Project Order	Various Government	2186	350	1-4Q	164	1-4Q	140	1-4Q	Continue	2840	Continue
Subtotal:			2186	350		164		140		Continue	2840	Continue

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Developmental Testing	MIPR	Various Government	1483	322	2Q	279	2Q	220	2Q	Continue	2304	Continue
Subtotal:			1483	322		279		220		Continue	2304	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . PM Administration	Allotment	Various Government	1435	202	1-4Q	258	1-4Q	212	1-4Q	Continue	2107	Continue
Subtotal:			1435	202		258		212		Continue	2107	Continue
Project Total Cost:			22801	2979		3344		2378		Continue	31502	Continue

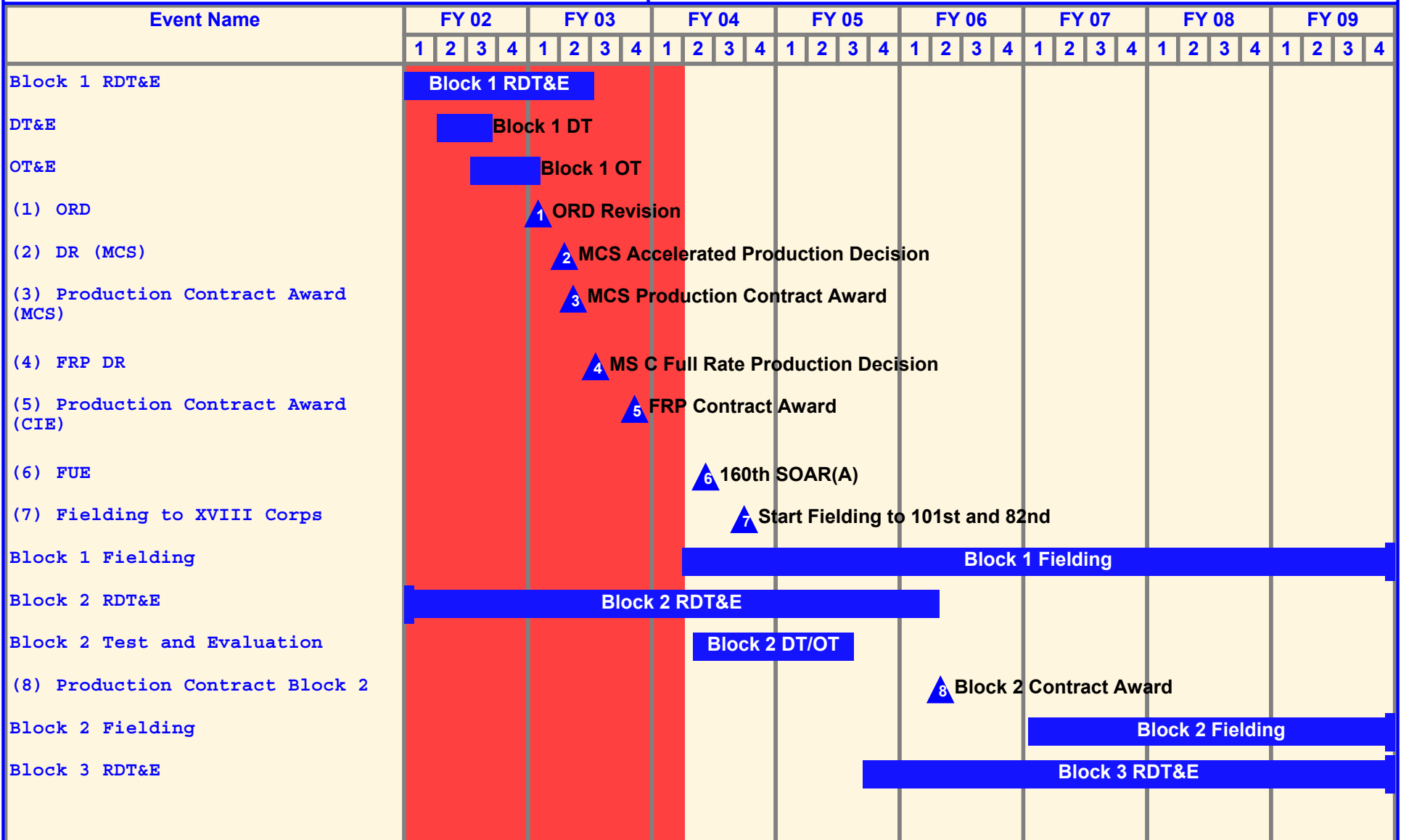
Schedule Profile (R4 Exhibit)

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Schedule Detail (R4a Exhibit)						February 2004	
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<u>Schedule Detail</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Began Air Warrior Block 1 nonrecurring production engineering integration into aircraft platforms.							
Completed Air Warrior System Block 1 Developmental and Operational Tests.	1Q						
Air Warrior Basic Block 1 ensemble Full Rate Production Decision.	3Q						
Advanced Component Development of Air Warrior Block 2 & 3 improvements.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
System Development and Demonstration of Air Warrior Block 2 & 3 improvements.	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Air Warrior Block 1 FUE.		2Q					