ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0203726A - Adv Field Artillery Tactical Data System**

COST (In Thousands)		FY 2 4 Actual	FY 2 5 Estimate	FY 2 6 Estimate	FY 2 7 Estimate	FY 2 8 Estimate	FY 2 9 Estimate	FY 2 1 Estimate	FY 2 11 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	283 8	17269	16 64	16948	125 7	9932	8316	8 92	Continuing	6166
322	ADV FA TAC DATA SYS/EFF CNTRL SYS AFATDS/ECS)	26432	17269	16064	16948	12507	9932	8316	8092	Continuing	0
33C	IMPROVED POSITION AZIMUTH DETERMINING SYS IPADS)	1876	0	0	0	0	0	0	0	0	6166

A. Mission Description and Budget Item Justification: Fire support is the effects of lethal and non-lethal weapons (fires) that directly support land, maritime, amphibious, and special operation forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. Fire support coordination is the planning and execution of fires so that a suitable weapon or group of weapons adequately covers targets. The Advanced Field Artillery Tactical Data System (AFATDS) is the tool that performs automated fire support coordination for the Army, Navy, Air Force, and Marine Corps.

AFATDS performs the attack analysis necessary to determine the optimal weapon target pairing to provide maximum use of the fire support assets. AFATDS will automatically implement detailed commander's guidance in the automation of operational planning, movement control, targeting, target value analysis and fire support planning. This project is a replacement system for the Initial Fire Support Automated System, Battery Computer System and Fire Direction System. AFATDS will interoperate with the other Army Battle Command Systems, current and future Army, Navy and Air Force Command and Control weapon systems, and the German, French, British, and Italian fire support systems. AFATDS automates the planning, coordinating and controlling of all fire support assets in the Joint battlespace (field artillery, mortars, close air support, naval gunfire, attack helicopters, and offensive electronic warfare). AFATDS will perform the Fire Support Command, Control, and Coordination requirements at all echelons of field artillery and maneuver, from Echelons Above Corps to Battery or Platoon in support of all levels of conflict. The system is composed of Common Hardware/Software employed in varying configurations at different operational facilities (or nodes) and unique system software interconnected by tactical communications in the form of a software-driven, automated network.

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Adv Field Artillery Tactical Data System

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Exhibit R-2
Budget Item Justification

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0203726A - Adv Field Artillery Tactical Data System**

B. Program Change Summary	FY 2 5	FY 2 6	FY 2 7
Previous President's Budget (FY 2 5)	17994	17393	13 21
Current Budget (FY 2 6/2 7 PB)	17269	16 64	16948
Total Adjustments	-725	-1329	3927
Net of Program/Database Changes			
Congressional Program Reductions	-261		
Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer	-464		
Adjustments to Budget Years		-1329	3927

FY 2   6 funds realigned (-$1329K) to higher priority requirements.
FY 2   7 funds realigned ($3927K) to support joint interoperability.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0203726A - Adv Field Artillery Tactical Data System**	**322**

COST (In Thousands)	FY 2 4 Actual	FY 2 5 Estimate	FY 2 6 Estimate	FY 2 7 Estimate	FY 2 8 Estimate	FY 2 9 Estimate	FY 2 1 Estimate	FY 2 11 Estimate	Cost to Complete	Total Cost
322 ADV FA TAC DATA SYS/EFF CNTRL SYS AFATDS/ECS)	26432	17269	16064	16948	12507	9932	8316	8092	Continuing	0

A. Mission Description and Budget Item Justification: Fire support is the effects of lethal and non-lethal weapons (fires) that directly support land, maritime, amphibious, and special operation forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. Fire support coordination is the planning and execution of fires so that a suitable weapon or group of weapons adequately covers targets. The Advanced Field Artillery Tactical Data System (AFATDS) is the tool that performs automated fire support coordination for the Army, Navy, Air Force, and Marine Corps.

AFATDS performs the attack analysis necessary to determine the optimal weapon target pairing to provide maximum use of the fire support assets. AFATDS will automatically implement detailed commander's guidance in the automation of operational planning, movement control, targeting, target value analysis and fire support planning. This project is a replacement system for the Initial Fire Support Automated System, Battery Computer System and Fire Direction System. AFATDS will interoperate with the other Army Battle Command Systems, current and future Army, Navy and Air Force Command and Control weapon systems, and the German, French, British, and Italian fire support systems. AFATDS automates the planning, coordinating and controlling of all fire support assets in the Joint battlespace (field artillery, mortars, close air support, naval gunfire, attack helicopters, and offensive electronic warfare). AFATDS will perform the Fire Support Command, Control, and Coordination requirements at all echelons of field artillery and maneuver, from Echelons Above Corps to Battery or Platoon in support of all levels of conflict. The system is composed of Common Hardware/Software employed in varying configurations at different operational facilities (or nodes) and unique system software interconnected by tactical communications in the form of a software-driven, automated network.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
Prepare and Support AFATDS Version 6.4 Test, Materiel Release and subsequent software block releases.	5568	1242	3692	1672
Continue AFATDS Version 6.4 and subsequent software block effort.	20864	16027	12372	15276
Totals	26432	17269	16064	16948

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		February 2005

BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203726A - Adv Field Artillery Tactical Data System**	PROJECT **322**

B. Other Program Funding Summary	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA B28600)	23349	26383	29537	21346	18549	15979	206	206	Continuing	Continuing
Spares BS9708)	2452	96	100	102	0	0	0	0	Continuing	Continuing
Mod Of In Service Equip B28620)	1972	3911	5104	5594	6202	8682	0	0	Continuing	Continuing

C. Acquisition Strategy: AFATDS have been fielded since 1996, with the original AFATDS Version 96 Materiel Release. It has been updated with subsequent releases reflecting the Spiral development strategy of the program. AFATDS Version 6.3.2 was released in January 2 4, and AFATDS Version 6.4. is planned for May 2   5. Future releases will include continuing joint and operational requirements resulting from Operation Iraq Freedom, Operation Enduring Freedom and future operational experience, as well as new weapons and precision fires capabilities.

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
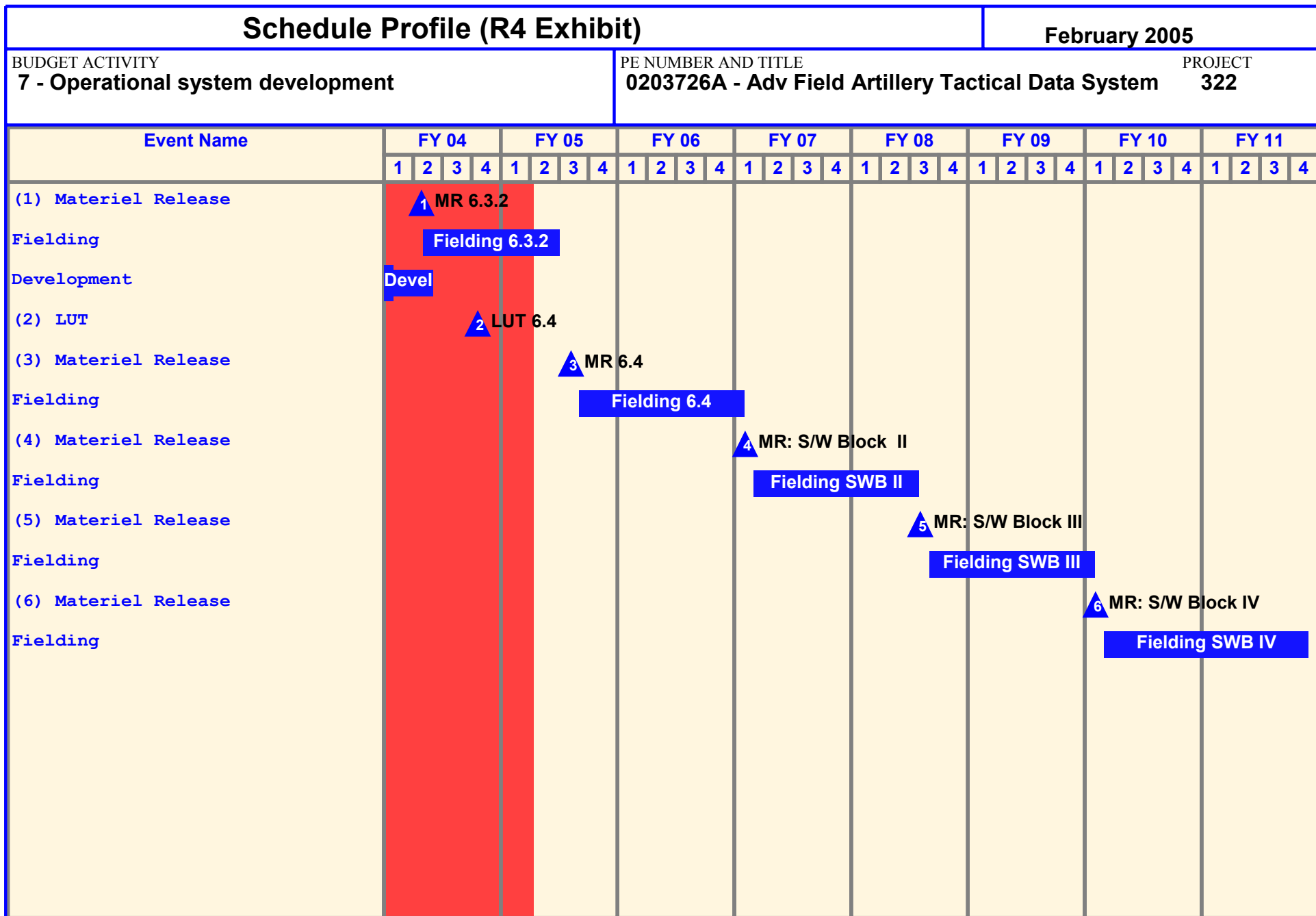**0203726A - Adv Field Artillery Tactical Data System**

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Software Development	CPAF	Raytheon Systems Corp, Ft. Wayne, IN	195447	13151	1-2Q	10571	2Q	13740	2Q	Continue	Continue	0
b . ABCS System Engineering & Integration Efforts	PWD	PEO C3T, Ft Monmouth, NJ	5390	0		0		0		Continue	Continue	0
c . Peculiar Support Equipment PSE)	C/FFP	General Dynamics, Taunton, MA	4267	380	2Q	269	2Q	274	2Q	Continue	Continue	0
Subtotal:			205104	13531		10840		14014		Continue	Continue	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Software Development Support	MIPR	CECOM, Ft. Monmouth, NJ & Telos, Shrewsbury, NJ	5187	523	2Q	534	2Q	479	2Q	Continue	Continue	0
b . Engineering Support	MIPR	CECOM, Ft Monmouth, NJ	3641	580	1-2Q	589	2Q	360	2Q	Continue	Continue	0
Subtotal:			8828	1103		1123		839		Continue	Continue	0

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Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

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Exhibit R-3
Cost Analysis

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Test Management		PM IE, Ft. Monmouth, NJ	723	140	2Q	143	2-3Q	146	2Q	Continue	Continue	0
b . Test Support	MIPR	Titan, Ft Sill, OK and Various	5594	950	2Q	890	2-3Q	514	2Q	Continue	Continue	0
c . Limited User Test/Government Confidence Demo	MIPR	Army Test & Evaluation Command	3000	0		1536	2-3Q	0		Continue	Continue	0
Subtotal:			9317	1090		2569		660		Continue	Continue	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . PM Support	T&M	CSC, Eatontown, NJ	4104	509	2Q	505	2Q	450	2Q	Continue	Continue	0
b . Program Management		PM IE, Ft Monmouth, NJ	7263	1036	1-4Q	1027	1-4Q	985	1-4Q	Continue	Continue	0
Subtotal:			11367	1545		1532		1435		Continue	Continue	0
Project Total Cost:			234616	17269		16064		16948		Continue	Continue	0

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Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

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Exhibit R-3
Cost Analysis

Schedule Profile (R4 Exhibit)

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	0203726A - Adv Field Artillery Tactical Data System	322

Event Name	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
	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	1 2 3 4
(1) Materiel Release	1 MR 6.3.2							
Fielding	Fielding 6.3.2							
Development	Devel							
(2) LUT	2 LUT 6.4							
(3) Materiel Release		3 MR 6.4						
Fielding		Fielding 6.4						
(4) Materiel Release			4 MR: S/W Block II					
Fielding			Fielding SWB II					
(5) Materiel Release				5 MR: S/W Block III				
Fielding				Fielding SWB III				
(6) Materiel Release					6 MR: S/W Block IV			
Fielding					Fielding SWB IV			

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Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

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Exhibit R-4
Budget Item Justification

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203726A - Adv Field Artillery Tactical Data System

PROJECT
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Schedule Detail	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Materiel Release 6.3.2	2Q							
AFATDS Version 6.4 Limited User Test LUT)	4Q							
AFATDS Version 6.4 Materiel Release		3Q						
Software Release Block II				1Q				
Software Release Block III					3Q			
Software Release Block IV							1Q	

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Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

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Exhibit R-4a
Budget Item Justification