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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - OPERATIONAL SYSTEMS DEV	**0203726A - Advanced Field Artillery Tactical Data System**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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	35378	36471	36969	0	0	0	0	0	0	0
2ET AFATDS OPERATIONL TEST	1891	0	0	0	0	0	0	0	0	0
322 ADV FA TAC DATA SYS/EFF CNTRL SYS (AFATDS/ECS)	33487	36471	36969	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

The Advanced Field Artillery Tactical Data System (AFATDS) will broaden and modernize the US Army fire support command, control and communications (C3) system. As a part of the Army Battle Command System (ABCS) architecture, AFATDS will provide automated fire support, fire planning and the coordination and employment of all service/combined fire support assets to complement the commander's scheme of maneuver. AFATDS will accomplish this by providing fully automated support for planning, coordination and control of all fire support assets (mortars, close air support, naval gunfire, attack helicopters, offensive electronic warfare, field artillery cannons, rockets and guided missiles) in the execution of close support, counterfire, interdiction, suppression of enemy air defense and deep operations. 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 Tactical Fire Direction System (TACFIRE) and the Initial Fire Support Automated System (IFSAS). The AFATDS supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP). The Legacy system support comes from the successful fieldings of AFATDS software Versions A96, A97, and A98. The Objective system support emanates from AFATDS Version 9 as the objective AFATDS system and the transitional support of AFATDS to the Effects Control System (ECS), which is the next iteration of Command and Control Fire Support.

0203726A
Advanced Field Artillery Tactical Data System

Item No. 152 Page 1 of 8
158

Exhibit R-2
Budget Item Justification

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - OPERATIONAL SYSTEMS DEV	**0203726A - Advanced Field Artillery Tactical Data System**

B. Program Change Summary	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	40860	36816	34330	0
Appropriated Value	41222	36816	0	
Adjustments to Appropriated Value	0	0	0	
a. Congressional General Reductions	0	0	0	
b. SBIR / STTR	-1076	0	0	
c. Omnibus or Other Above Threshold Reductions	-165	0	0	
d. Below Threshold Reprogramming	-4406	0	0	
e. Rescissions	-197	-345	0	
Adjustments to Budget Years Since FY2001 PB	0	0	2639	
Current Budget Submit (FY 2002/2003 PB)	35378	36471	36969	0

FY00 decrease due to 2M BTR to PEO IEW; 1.580M BTR to PM TOCS for AMDPCS and .826M BTR for Near Term Digital Radio S (NTDR).
FY02 Fund increase ($2.6M) for development of software functionality IAW the AFATDS Acquisition Program Baseline.
FY03 Fund increase ($2.5M) for development of software functionality IAW the AFATDS Acquisition Program Baseline.

0203726A
Advanced Field Artillery Tactical Data System

Item No. 152 Page 2 of 8
159

Exhibit R-2
Budget Item Justification

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - OPERATIONAL SYSTEMS DEV	0203726A - Advanced Field Artillery Tactical Data System	322

COST (In Thousands)		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
322	ADV FA TAC DATA SYS/EFF CNTRL SYS (AFATDS/ECS)	33487	36471	36969	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Project D322 - AFATDS Development: The project is composed of Army Battlefield Command System (ABCS) Common Hardware/Software (CHS) 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. Both hardware and software will be capable of being tailored to perform the fire support command, control, and coordination requirements at any level of command. This will permit variable command and control relationships and full fire support functionality at all echelons of field artillery and maneuver, from echelons above corps to battery or platoon in support of all levels of conflict. The Marine Corps will also utilize AFATDS. AFATDS will interoperate with Navy and Air Force Command and Control weapon systems as well as the Allied fire support systems ADLER (Germany), ATLAS (France), BATES (UK), and SIR (Italy).

FY 2000 Accomplishments

- 1500   Prepared for Limited User Test of AFATDS '99 software.
- 31987   Continued AFATDS '99 software development in support of Fire Support and ABCS functionality development to include FDD/FDC.

Total 33487

FY 2001 Planned Program

- 2108   Support Test and Materiel Release of AFATDS '99 Software
- 33305   Continue AFATDS '99 and begin AFATDS Version 7 software development in support of Fire Support and ABCS functionality development to include FDD/FDC.
- 1058   SBIR/STTR support

Total 36471

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 3 of 8
160

Exhibit R-2A
Budget Item Justification

BUDGET ACTIVITY **7 - OPERATIONAL SYSTEMS DEV**	PE NUMBER AND TITLE **0203726A - Advanced Field Artillery Tactical Data System**	PROJECT **322**

FY 2002 Planned Program

- 2780   Prepare for Test and Materiel Release of AFATDS Version 7 Software

- 34189   Continue AFATDS Version 7 software development in support of Fire Support and ABCS functionality development to include FDC.

Total 36969

B. Other Program Funding Summary	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
OPA (B28600)	43856	58551	49476	0	0	0	0	0	0	0
Spares (BS9708)	2370	2613	2832	0	0	0	0	0	0	0
MOD IN SERVICE EQUIP (B28620)	0	0	0	0	0	0	0	0	0	0

C. Acquisition Strategy: AFATDS software will be developed in incremental releases. AFATDS '96, which received Materiel Release on 13 December 1996, automated 51% of the required tasks including fire support planning, target nomination, order of fire, and meteorological/survey operations. Subsequent releases add additional functions, providing automated capabilities for the required tasks including fire support sensor planning and additional munitions. Completion of AFATDS Version 9 will result in automation of all required functionality, as currently defined, including full fire support planning, target acquisition support, and field artillery mission support. Additionally, the AFATDS software will utilize the Joint Common Operating Environment (JCOE) and the Joint Technical Architecture. AFATDS will support FDD/FDC and Army Warfighter Experiments through FY 2005.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AFATDS '98 Materiel Release	1Q			0	0	0	0	0
AFATDS '99 Limited User Test (LUT)		2Q		0	0	0	0	0
AFATDS '99 Materiel Release		4Q		0	0	0	0	0
AFATDS Version 7 LUT			4Q	0	0	0	0	0
AFATDS Version 7 Materiel Release				0	0	0	0	0
AFATDS Version 8 LUT				0	0	0	0	0
AFATDS Version 8 Materiel Release				0	0	0	0	0

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 4 of 8
161

Exhibit R-2A
Budget Item Justification

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

June 2001

BUDGET ACTIVITY **7 - OPERATIONAL SYSTEMS DEV**	PE NUMBER AND TITLE **0203726A - Advanced Field Artillery Tactical Data System**	PROJECT **322**

D. Schedule Profile (continued)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AFATDS Version 9 LUT				0	0	0	0	0

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 5 of 8
162

Exhibit R-2A
Budget Item Justification

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - OPERATIONAL SYSTEMS DEV	**0203726A - Advanced Field Artillery Tactical Data System**	**322**

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 . Software Development	SS/CPAF	Raytheon Systems Corp (prev. MX, HDC)	83149	30547	2Q	33500	2Q	0	0	0	0	0
b . ABCS SE&I/COE	MIPR	DISA/ATCCS/PEO C3S	2582	1524	2Q	0	2Q	0	0	0	0	0
c . GFE: PSE	C/FFP	Litton, General Dynamics	2287	390	2Q	510	2Q	0	0	0	0	0
Subtotal:			88018	32461		34010		0		0	0	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
a . Software Development Support	MIPR	CECOM SED	800	120	2Q	391	2Q	0	0	0	0	0
b . Software Development Support	MIPR	FSSED/TELOS	1649	318	2Q	438	2Q	0	0	0	0	0
c . Engineering Support	MIPR	CECOM MATRIX	1099	337	2Q	305	2Q	0	0	0	0	0
Subtotal:			3548	775		1134		0		0	0	0

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 6 of 8
163

Exhibit R-3
Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3) June 2001

| BUDGET ACTIVITY **7 - OPERATIONAL SYSTEMS DEV** | PE NUMBER AND TITLE **0203726A - Advanced Field Artillery Tactical Data System** | PROJECT **322** |

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 . Test Management	MIPR	CECOM	205	110	2Q	115	2Q	0	0	0	0	0
b . Test Support	MIPR	Misc	763	663	2Q	310	2Q	0	0	0	0	0
Subtotal:			968	773		425		0		0	0	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 . PM Support	C/CPFF	CSC, NJ	1379	345	2Q	325	2Q	0	0	0	0	0
b . PROGRAM MANAGEMENT:			0	0		0		0	0	0	0	0
c . PM FATDS			1575	759	2Q	730	2Q	0	0	0	0	0
d . MATRIX			872	300	2Q	345	2Q	0	0	0	0	0
e . SBIR/STTR			0	1058	2Q	0		0	0	0	0	0

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 7 of 8
164

Exhibit R-3
Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - OPERATIONAL SYSTEMS DEV	**0203726A - Advanced Field Artillery Tactical Data System**	**322**

IV. Management Services (continued)	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:			3826	2462		1400		0		0	0	0
Project Total Cost:			96360	36471		36969		0		0	0	0

0203726A (322)
Adv Fa Tac Data Sys/Eff Cntrl Sys (AFATDS/ECS)

Item No. 152 Page 8 of 8
165

Exhibit R-3
Cost Analysis