

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY		PE NUMBER AND TITLE							
4 - Advanced Component Development and Prototypes		0603801A - Aviation - Adv Dev							
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	8848	6440	7455	8676	8613	7990	9477	Continuing	Continuing
B32 ADV MAINT CONCEPTS/EQ	8848	6440	7455	8676	8613	7990	9477	Continuing	Continuing
B45 AIRCREW INTEGRATED SYS-AD									7135

A. Mission Description and Budget Item Justification: This PE provides advanced development aviation support of tactical programs associated with air mobility, advanced maintenance concepts and equipment, and Aircrew Integrated Systems (ACIS). This program demonstrates the feasibility and maturity of new technology and gains understanding in order to evaluate utility of this technology to expedite delivery of new capabilities for Army Aviation rotary wing assets. Additionally, the Aviation Ground Support Equipment (AGSE) assets enhance the functionality of current and future aircraft by improving the effectiveness of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, improve aircraft maintenance processes, reduce Operation and Support (O&S) cost and insert diagnostics technologies to replace obsolete and unsupportable equipment.

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PE NUMBER AND TITLE

4 - Advanced Component Development and Prototypes

0603801A - Aviation - Adv Dev

B. Program Change Summary

	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	9536	6481	7503
Current BES/President's Budget (FY 2009)	8848	6440	7455
Total Adjustments	-688	-41	-48
Congressional Program Reductions		-41	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-419		
SBIR/STTR Transfer	-269		
Adjustments to Budget Years			-48

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					PROJECT B32			
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost	
B32 ADV MAINT CONCEPTS/EQ	8848	6440	7455	8676	8613	7990	9477	Continuing	Continuing	

A. Mission Description and Budget Item Justification: This program demonstrates the feasibility and maturity of new technology and gains understanding in order to evaluate utility of this technology to expedite delivery of new capabilities for Army Aviation rotary wing assets. Additionally, the Aviation Ground Support Equipment (AGSE) assets enhance the functionality of current and future aircraft by improving the effectiveness of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, improve aircraft maintenance processes, reduce Operation and Support (O&S) cost and insert diagnostics technologies to replace obsolete and unsupportable equipment. This program provides for development of rapid battle repair procedures, tools development to speed the return of aircraft to a full mission status and development of new equipment for aerial recovery of damaged aircraft. Included in this program are projects such as: diagnostics/prognostic monitoring systems, Battle Damage Assessment and Repair (BDAR) procedures and tools, support to modernized aircraft, Flexible Engine Diagnostic System (FEDS), Unit Maintenance Aerial Recovery Kit (UMARK), Standard Towing System (SATS), Shop Equipment Contact Maintenance (SECM), Aviation - Sets, Kits, Outfits and Tools (A-SKOT) redesign, Digital Aircraft Weighing Scales (DAWS), development of the modular Aviation Ground Power Unit (AGPU) II, Generic Aircraft Nitrogen Generator (GANG), Hand Held Fire Extinguisher (HHFE), and development support for tools needed to provide maintenance support to modernized/future force aircraft.

FY 2007 funding total includes no funding received in GWOT supplemental.

FY 2008 funding total includes no funding received in the Bridge Supplemental.

FY 2008 funding totals do not include any previously requested funding for current FY 2008 GWOT requirements, and no FY 2008 GWOT funds have been previously requested in the RDTE Project of B32.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Hand Held Fire Extinguisher (HHFE)	345	220	
Digital Aircraft Weighing Scales (DAWS)	35	165	
Battle Damage Assessment and Repair System (BDAR)		200	250
Standard Aircraft Towing System (SATS)	385	681	500
Generic Aircraft Nitrogen Generator (GANG)	397		
Flexible Engine Diagnostics (FEDS) Next Generation	64	500	1025
FEDS T-701 Engine	118		
Shop Equipment Contact Maintenance (SECM) Modernization	1556	971	914
Aviation Ground Power Unit (AGPU) II	3112		1100
Unit Maintenance Aerial Recovery Kit (UMARK)	873	1520	1265

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Aviation - Sets, Kits, Outfits and Tools (A-SKOT)	1040	1116	1448	
Management Support Services	197	180	225	
Technical Engineering Services	601	532	528	
RDT&E Project Test Support	125	175	200	
Small Business Innovative Research (SBIR)/Small Business Technology Transfer Programs (STTR)		180		
Total	8848	6440	7455	

<u>B. Other Program Funding Summary</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
Aircraft Procurement, Army(APA) SSN AZ3100	61363	84713	103882	86419	65024	71543	98656	Continuing	Continuing

Comment:

C. Acquisition Strategy This project is an aggregate of advanced maintenance concepts-related projects. While the detailed acquisition strategy varies from project to project, the general strategy for each individual project is to complete the development effort through Government test (developmental and operational). Program documentation for milestone decision is prepared, as appropriate, concurrently with the development effort.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603801A - Aviation - Adv Dev							B32		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
BDAR System	MIPR	Logistics Support Facility (LSF)/ AMRDEC, Redstone Arsenal, AL				200	3Q	250	2-3Q		450	450
HHFE	MIPR	AATD, Ft. Eustis, VA		345	4Q	220	3Q				565	565
SATS	MIPR	Navy, Lakehurst, NJ/ AMCOM, Redstone Arsenal, AL/ AEC, Aberdeen Proving Ground, MD	894	385	2Q	681	2-3Q	500	3Q		2460	2460
GANG	MIPR	AEC, Aberdeen Proving Ground, MD		397	2Q						397	397
FEDS T-701 Engine	MIPR	AMRDEC, Redstone Arsenal, AL		118	3Q						118	118
FEDS Next Generation	MIPR	AMRDEC, Redstone Arsenal, AL		64	4Q	500	3Q	1025	2-3Q	Cont.	Cont.	Cont.
SECM	Various	PM UAS/ PIF, Redstone Arsenal, AL/JVYS, Huntsville, AL/TACOM, Detroit, MI	1679	1556	2-4Q	971	3Q	914	2-3Q	Cont.	Cont.	Cont.
AGPU II	Various	UAH, Huntsville, AL/Applied Geo Tech, Choctaw, MS/TBD	7124	3112	3-4Q			1100	2-3Q	Cont.	Cont.	Cont.
DAWS	MIPR	AMRDEC, Redstone Arsenal, AL/ AEC, Aberdeen Proving Ground, MD		35	3Q	165	2-3Q				200	200
UMARK	MIPR	AMRDEC, Redstone Arsenal, AL/AEC, Aberdeen Proving Ground, MD		873	2-4Q	1520	3Q	1265	2-3Q	Cont.	Cont.	Cont.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

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4 - Advanced Component Development and Prototypes			0603801A - Aviation - Adv Dev							B32		
A-SKOT	Various	LSF/AMRDEC, Redstone Arsenal, AL/TACOM, Warren, MI/RDECOM/Natick, MA/AATD, Ft. Eustis, VA		1040	1-4Q	1116	3Q	1448	2-3Q	Cont.	Cont.	Cont.
Subtotal:			9697	7925		5373		6502		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Technical Engineering Services	MIPR	AATD, Ft. Eustis, VA	5007	601	1-4Q	532	1-3Q	528	1-3Q	Cont.	Cont.	Cont.
Subtotal:			5007	601		532		528		Cont.	Cont.	Cont.
Remarks: None												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
RDT&E Project Test Support	MIPR	AEC, Aberdeen Proving Ground, MD	210	125	1-3Q	175	1-3Q	200	1-3Q	Cont.	Cont.	Cont.
Subtotal:			210	125		175		200		Cont.	Cont.	Cont.
Remarks: None												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Management Support Services	C/FP/ Level of Effort and InHouse	AGSE, Redstone Arsenal, AL & Science Applications Intl Corp, San Diego, CA	1997	197	1-4Q	180	1Q	225	1-4Q	Cont.	Cont.	Cont.
SBIR/STTR						180	1Q				180	

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February 2008

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev					PROJECT B32			
Subtotal:		1997	197		360		225	Cont.	Cont.	Cont.
Remarks: None										
Project Total Cost:		16911	8848		6440		7455	Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2008

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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
	Battle Damage Assessment & Repair					BDAR																						
Generic Aircraft Nitrogen Generator	GANG																											
Flexible Engine Diagnostic System Next Generation						FEDS Next Generation																						
Standard Aircraft Towing System	SATS																											
Shop Equipment Contact Maintenance						SECM																						
Aviation Ground Power Unit II						AGPU II																						
Unit Maintenance Aerial Recovery Kit						UMARK																						
Aviation - Sets, Kits, Outfits and Tools						A-SKOT																						
Flexible Engine Diagnostic System T-701 Engine						FEDS T-701																						
Hand Held Fire Extinguisher						HHFE																						
Digital Aircraft Weighing Scales						DAWS																						

Schedule Detail (R4a Exhibit)

February 2008

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4 - Advanced Component Development and Prototypes		0603801A - Aviation - Adv Dev					B32	
<u>Schedule Detail</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	
Battle Damage Assessment & Repair		2Q - 4Q	1Q - 4Q					
Generic Aircraft Nitrogen Generator	2Q - 4Q	1Q						
Flexible Engine Diagnostic System Next Generation	4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q	
Standard Aircraft Towing System	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q				
Shop Equipment Contact Maintenance	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q			
Aviation Ground Power Unit II	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q	
Unit Maintenance Aerial Recovery Kit	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q	
Aviation - Sets, Kits, Outfits and Tools	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Flexible Engine Diagnostic System T-701 Engine	3Q - 4Q	1Q - 3Q						
Hand Held Fire Extinguisher	4Q	1Q - 4Q	1Q - 3Q					
Digital Aircraft Weighing Scales	3Q - 4Q	1Q - 4Q						