

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							February 2006			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes			PE NUMBER AND TITLE 0603801A - Aviation - Adv Dev							
COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost		22809	7146	6542	6218	6757	8984	8926	Continuing	Continuing
079	JT SURVIVABILITY INVES	957	0	0	0	0	0	0	0	0
B32	ADV MAINT CONCEPTS/EQ	15679	6160	6542	6218	6757	8984	8926	Continuing	Continuing
B45	AIRCREW INTEGRATED SYS-AD	6173	986	0	0	0	0	0	0	18357
<p><b><u>A. Mission Description and Budget Item Justification:</u></b> 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 developed enhance the functionality of current and future aircraft by improving the efficiency of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, enhance aircraft maintenance processes, reduce Operation and Support (O&amp;S) cost and insert diagnostics technologies to replace obsolete and unsupportable equipment.</p>										

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	FY 2005	FY 2006	FY 2007	
<b><u>B. Program Change Summary</u></b>				
Previous President's Budget (FY 2006)	16017	6249	6614	
Current BES/President's Budget (FY 2007)	22809	7146	6542	
Total Adjustments	6792	897	-72	
Congressional Program Reductions		-72		
Congressional Rescissions	-13	-31		
Congressional Increases		1000		
Reprogrammings	6805			
SBIR/STTR Transfer				
Adjustments to Budget Years			-72	
The \$986 Congressional plus up for FY 06 for Pennsylvania NG was placed on project B45 and should be placed on project B32.				

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COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
B32 ADV MAINT CONCEPTS/EQ	15679	6160	6542	6218	6757	8984	8926	Continuing	Continuing
<b>A. Mission Description and Budget Item Justification:</b> 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 developed enhance the functionality of current and future aircraft by improving the efficiency of maintenance and servicing operations through validating new maintenance concepts to improve man and machine interfaces, enhance 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, Aviation Turbine Engine Diagnostics System (ATEDS), 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, Aviation Vibration Analyzer II (AVA-II) and development of the modular Aviation Ground Power Unit (AGPU), Generic Aircraft Nitrogen Generator (GANG), and development support for tools needed to provide maintenance support to modernized/future force aircraft.									
<b><u>Accomplishments/Planned Program</u></b>						<b><u>FY 2005</u></b>	<b><u>FY 2006</u></b>	<b><u>FY 2007</u></b>	
Aviation Turbine Engine Diagnostic System (ATEDS)						7097	2428	1093	
Battle Damage Assessment and Repair System (BDAR)						0	100	100	
Standard Aircraft Towing System (SATS)						484	200	510	
Generic Aircraft Nitrogen Generator (GANG)						0	0	100	
Flexible Engine Diagnostic System (FEDS)						0	0	118	
Shop Equipment Contact Maintenance (SECM) Modernization						350	890	1346	
Maintenance Platform & Tow Bar Modernization						150	0	0	
Aviation Ground Power Unit (AGPU) Modular Integration						5030	1000	1075	
Unit Maintenance Aerial Recovery Kit (UMARK)						0	150	100	
Aviation - Sets, Kits, Outfits and Tools (A-SKOT)						0	305	900	
Aviation Vibration Analyzer II (AVA-II)						278	0	0	
Management Support Services						941	250	275	
Technical Engineering Services						1249	700	800	
RDT&E Project Test Support						100	137	125	
Total						15679	6160	6542	

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<b><u>B. Other Program Funding Summary</u></b>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Aircraft Procurement, Army(APA) SSN AZ3100	34922	61993	64683	75526	68228	67407	62759	CONT	CONT
<p><b><u>C. Acquisition Strategy</u></b> 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.</p>									

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
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 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
ATEDS - Software development and demonstration	Various	PIF/Boeing/GE, Mesa, AZ	1651	4078	1-4Q	0		0		5729	5729	5729
ATEDS - Multi Engine/Integration	Various	PIF/Boeing/GE, Sikorsky/GE, Honeywell; PIF, Redstone Arsenal, AL	1563	3019	1-4Q	2428	2-3Q	1093	2Q	Continue	Continue	Continue
BDAR System	MIPR	PIF, Redstone Arsenal, AL	0	0		100	2Q	100	2Q	Continue	Continue	Continue
SATS	MIPR	PIF/AATD, Ft. Eustis, VA	300	484	1Q	200	2Q	510	2Q	Continue	Continue	Continue
GANG	MIPR	AATD, Ft. Eustis, VA	0	0		0		100	2Q	0	100	0
FEDS	MIPR	Navy, Lakehurst, NJ	0	0		0		118	2Q	0	118	0
SECM	MIPR	PIF, Redstone Arsenal, AL	450	350	1Q	890	3Q	1346	2Q	Continue	Continue	Continue
Maintenance Platform & Towbar Modernization	MIPR	AATD, Ft. Eustis, VA	200	150	1Q	0		0		0	350	0
AGPU Modular Integration	Various	AM General, Detroit, MI/Solecra, Boston, MA, (Applied Geo Tech (AGT)/AAI Corp, Choctaw, MS	773	5030	1-4Q	1000	2Q	1075	2Q	Continue	Continue	Continue
UMARK	MIPR	PIF	0	0		150	3Q	100	2Q	0	250	0
A-SKOT	MIPR	AATD, Ft. Eustis, VA	0	0		305	2Q	900	2Q	Continue	Continue	Continue
AVA-II	MIPR	PIF, Redstone Arsenal, AL	1055	278	2-3Q	0		0		0	1333	0
Subtotal:			5992	13389		5073		5342		Continue	Continue	Continue
II. Support Costs	Contract	Performing Activity &	Total	FY 2005	FY 2005	FY 2006	FY 2006	FY 2007	FY 2007	Cost To	Total	Target

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	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract
Technical Engineering Services	MIPR	AATD, Ft. Eustis, VA	3058	1249	1Q	700	1-3Q	800	1-3Q	Continue	Continue	Continue
Subtotal:			3058	1249		700		800		Continue	Continue	Continue
Remarks: None												
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
RDT&E Project Test Support	MIPR	ATEC	0	100	3Q	137	1-3Q	125	1-3Q	Continue	Continue	Continue
Subtotal:			0	100		137		125		Continue	Continue	Continue
Remarks: None												
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
Program Management Support	FFP/Cost Reimb and Inhouse	AGSE & Science Applications Intl Corp, San Diego, CA	949	941	1-4Q	250	1-4Q	275	1-4Q	Continue	Continue	Continue
Subtotal:			949	941		250		275		Continue	Continue	Continue
Remarks: None												
<b>Project Total Cost:</b>			<b>9999</b>	<b>15679</b>		<b>6160</b>		<b>6542</b>		<b>Continue</b>	<b>Continue</b>	<b>Continue</b>

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Schedule Detail (R4a Exhibit)					February 2006		
BUDGET ACTIVITY <b>4 - Advanced Component Development and Prototypes</b>		PE NUMBER AND TITLE <b>0603801A - Aviation - Adv Dev</b>				PROJECT <b>B32</b>	
<u>Schedule Detail</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
AVIATION TURBINE ENGINE DIAGNOSTIC SYSTEM (ATEDS)	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
BATTLE DAMAGE ASSESSMENT & REPAIR (BDAR)		2-4Q	1-4Q	1-4Q			
STANDARD AIRCRAFT TOWING SYSTEM (SATS)	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
GENERIC AIRCRAFT NITROGEN GENERATOR (GANG)			1-4Q				
FLEXIBLE ENGINE DIAGNOSTIC SYSTEM (FEDS)			2-4Q				
SHOP EQUIPMENT CONTACT MAINT (SECM) MODERNIZATION	1-4Q	1-4Q	1-4Q	1-4Q			
MAINT PLATFORM & TOWBAR MODERNIZATION	1-4Q						
AVIATION GROUND POWER UNIT (AGPU) MODULAR INTEGRATION	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
UNIT MAINT AERIAL RECOVERY KIT (UMARK)		3-4Q	1-4Q				
AVIATION-SETS, KITS, OUTFITS AND TOOLS (A-SKOT)		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
AVIATION VIBRATION ANALYZER II (AVA-II)	1-4Q						
MANAGEMENT SUPPORT SERVICES	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
TECHNICAL ENGINEERING SERVICES	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
RDT&E PROJECT TEST SUPPORT	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q