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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604220A: <i>Armed, Deployable Helos</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	61.643	72.550	166.132	-	166.132	59.958	35.908	-	-	Continuing	Continuing
538: <i>KIOWA WARRIOR</i>	60.368	70.461	87.442	-	87.442	54.873	35.908	-	-	Continuing	Continuing
53Z: <i>ARMED SCOUT HELICOPTER</i>	1.275	2.089	78.690	-	78.690	5.085	-	-	-	Continuing	Continuing

Note

Change Summary Explanation:

FY 2012: Base funding realigned from other Army programs.

A. Mission Description and Budget Item Justification

The Kiowa Warrior (KW) funding line (Project 538) develops, integrates and tests modifications which will allow the OH-58D to continue to safely serve as the Army's armed reconnaissance aviation capability until replaced/retired. An ACAT II program, KW Cockpit And Sensor Upgrade Program (CASUP), was established to address capability shortfalls, obsolescence, and performance issues with the current fielded fleet. KW CASUP is not the alternative solution to meet the Armed Reconnaissance Helicopter capability.

The Armed Scout Helicopter funding line (Project 53Z) has been established to fund the Analysis of Alternatives (AoA) and milestone documentation development in support of efforts to identify a replacement for the aging KW fleet or an upgrade to the OH-58 design.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	66.169	72.550	21.293	-	21.293
Current President's Budget	61.643	72.550	166.132	-	166.132
Total Adjustments	-4.526	-	144.839	-	144.839
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.581	-			
• Adjustments to Budget Years	-1.600	-	144.839	-	144.839
• Economic Assumption	-0.277	-	-	-	-
• FFRDC	-0.068	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos				PROJECT 538: KIOWA WARRIOR			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
538: KIOWA WARRIOR	60.368	70.461	87.442	-	87.442	54.873	35.908	-	-	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
The OH-58D Kiowa Warrior is a two-seat, single-engine, observation, scout/attack helicopter with four main rotor blades. It utilizes a thermal-imaging system and a laser rangefinder/designator in a mast-mounted sight situated above the main rotor system. The aircraft is equipped with a variety of weapon systems including: HELLFIRE, 2.75-inch rockets, and a .50-caliber machine gun. The aircraft operates autonomously at standoff ranges providing armed reconnaissance, command and control, and target acquisition/designation for Apache helicopters and other airborne weapons platforms in day, night, and adverse-weather conditions. The Active Army and the National Guard fly Kiowa Warriors.											
Funding develops, integrates and qualifies modifications to support Kiowa Warrior missions - principally the ACAT II Kiowa Warrior Cockpit and Sensor Upgrade Program (CASUP). These upgrades to the Kiowa Warrior will convert the OH-58D(R) to the OH-58F configuration, and allow it to continue to safely serve as the Army's armed reconnaissance, aviation platform through its operation service end date of FY2025. The modifications planned will address issues with weight, safety, interoperability, survivability, and sustainability to enhance mission capability.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Development and Integration							45.043	52.616	60.392	-	60.392
Articles:							0	0			
Description: Development and Integration Efforts											
FY 2010 Accomplishments: Development and Integration Efforts											
FY 2011 Plans: Development and Integration Efforts											
FY 2012 Base Plans: Development and Integration Efforts											
Title: Engineering Support Activities							6.415	8.200	13.416	-	13.416
Articles:							0	0			
Description: Engineering Support Activities											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army				DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos		PROJECT 538: KIOWA WARRIOR		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Engineering Support Activities						
FY 2011 Plans: Engineering Support Activities						
FY 2012 Base Plans: Engineering Support Activities						
Title: Test and Evaluation Articles:		2.980 0	3.000 0	6.174	-	6.174
Description: Test and Evaluation						
FY 2010 Accomplishments: Test and Evaluation						
FY 2011 Plans: Test and Evaluation						
FY 2012 Base Plans: Test and Evaluation						
Title: Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) Articles:		1.600 0	-	-	-	-
Description: Provides support for Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) initiatives						
FY 2010 Accomplishments: Provides support for Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) initiatives.						
Title: Program Management Articles:		4.330 0	6.645 0	7.460	-	7.460
Description: Program Management						
FY 2010 Accomplishments:						

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army				DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>		PROJECT 538: <i>KIOWA WARRIOR</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Program Management					
<i>FY 2011 Plans:</i> Program Management					
<i>FY 2012 Base Plans:</i> Program Management					
Accomplishments/Planned Programs Subtotals	60.368	70.461	87.442	-	87.442

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• AZ2200: <i>Kiowa Warrior (AZ2200)</i>	174.854	94.400	162.052	145.500	307.552		274.007	285.508	365.879	464.310	2,154.777

D. Acquisition Strategy
The Government will serve as the system integrator managing multiple contracts.

E. Performance Metrics
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos	PROJECT 538: KIOWA WARRIOR
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Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management (Core Funding)	Various	Various Activities:Various Activities	2.098	6.645		7.460		-		7.460	Continuing	Continuing	Continuing
Small Business Innovative Research (SBIR) and Small Business Technology Transfer Program (STTR)	Various	Dept of Army:Dept of Army Initiatives	-	-		-		-		-	Continuing	Continuing	0.000
Subtotal			2.098	6.645		7.460		-		7.460			

Remarks

Funding will provide Armed Scout Helicopter (ASH) Government and contractor Program Management, Engineering, and Logisitical support for CASUP.

Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Integration (Core Funding)	Various	Honeywell Inc (CDS5 Software Development):PIF (Structural Integration)	81.528	52.616		60.392		-		60.392	Continuing	Continuing	Continuing
Subtotal			81.528	52.616		60.392		-		60.392			

Remarks

Funding will provide both contractor and in-house development and integration efforts for Cockpit And Sensor Upgrade Program (CASUP).

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support Activities	Various	Various Activities:AED & SED	7.022	8.200		13.416		-		13.416	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>					R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>					PROJECT 538: <i>KIOWA WARRIOR</i>				

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			7.022	8.200		13.416		-		13.416			

Remarks													
Funding will provide CASUP engineering support activities performed by Aviation Engineering Directorate (AED) and Software Engineering Directorate (SED).													

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation (Core Funding)	Various	Various Activities:RTC, AATD, DTC, OTC	1.411	3.000		6.174		-		6.174	Continuing	Continuing	Continuing
Subtotal			1.411	3.000		6.174		-		6.174			

Remarks													
Funding will provide CASUP test and evaluation activities conducted by Redstone Test Center (RTC), Aviation Applied Technology Directorate (AATD), Developmental Test Command (DTC), and Operational Test Command (OTC).													

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	92.059	70.461		87.442		-		87.442			

Remarks											

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army																DATE: February 2011																									
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>										R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>										PROJECT 538: <i>KIOWA WARRIOR</i>																					
										FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016							
										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				
Test and Evaluation (Core Funding)																																									

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>	PROJECT 538: <i>KIOWA WARRIOR</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Test and Evaluation (Core Funding)	3	2010	3	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos				PROJECT 53Z: ARMED SCOUT HELICOPTER			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
53Z: ARMED SCOUT HELICOPTER	1.275	2.089	78.690	-	78.690	5.085	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
The mission of the Kiowa Warrior replacement aircraft is to provide a robust reconnaissance and security capability for the Joint Combined arms air-ground maneuver team. It will be a direct replacement for the aging OH-58D Kiowa Warrior / OH-58F Kiowa Warrior CASUP fleet or an upgrade to the OH-58 design.											
The aircraft will provide a highly deployable, reconnaissance and security capability that will employ immediately upon arrival into theater. The platform will address the capability gaps of interoperability, survivability, versatility, agility, lethality, and sustainability to ensure interoperability over extended ranges, enhance mission effectiveness throughout the operational environment, and focus on system survivability against threats operating in the contemporary operational environment, while reducing the logistical burden on the tactical unit. The fundamental purpose is to perform reconnaissance and to provide security in combat operations. In doing so, it improves the commander's ability to maneuver and concentrate superior combat power against the enemy at the decisive time and place.											
Funding supports the Armed Aerial Scout (AAS) Analysis of Alternatives, the development of milestone documents/reviews, and initial risk reduction efforts post Milestone A during a Technology Development Phase. Post FY12 funding will be re-addressed as program strategies mature.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: AAS AoA and Milestone support Articles: Description: Funding is provided for the following effort FY 2010 Accomplishments: Funded AAS AoA and Milestone support FY 2011 Plans: Continue AAS AoA and Milestone support FY 2012 Base Plans: Will continue AAS AoA and Milestone support							1.275	2.089	4.761	-	4.761
							0	0			
Title: Technology Development							-	-	73.929	-	73.929

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army				DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>		PROJECT 53Z: <i>ARMED SCOUT HELICOPTER</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Technology Development					
FY 2012 Base Plans: Technology Development					
Accomplishments/Planned Programs Subtotals	1.275	2.089	78.690	-	78.690

C. Other Program Funding Summary (\$ in Millions)
N/A

D. Acquisition Strategy
N/A

E. Performance Metrics
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604220A: <i>Armed, Deployable Helos</i>				PROJECT 53Z: <i>ARMED SCOUT HELICOPTER</i>					

Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development	C/CR	Various:Various	-	-		73.929		-		73.929	Continuing	Continuing	Continuing
Subtotal			-	-		73.929		-		73.929			

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AAS AoA and Milestone support	C/CR	Various:Various	-	2.089		4.761		-		4.761	Continuing	Continuing	Continuing
Subtotal			-	2.089		4.761		-		4.761			

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	2.089		78.690		-		78.690			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army																DATE: February 2011																					
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)										R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos										PROJECT 53Z: ARMED SCOUT HELICOPTER																	
										FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
										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
Technology Development																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604220A: Armed, Deployable Helos	PROJECT 53Z: ARMED SCOUT HELICOPTER	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Technology Development	4	2011	3	2012