Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 5: System

PE 0604220A I Armed, Deployable Helos

Development & Demonstration (SDD)

0007 (0 : 14:11:)	Prior			FY 2015	FY 2015	FY 2015					Cost To	Total
COST (\$ in Millions)	Years	FY 2013	FY 2014	Base	OCO#	Total	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Cost
Total Program Element	-	80.934	69.807	-	-	-	-	-	-	-	Continuing	Continuing
538: Kiowa Warrior	-	76.067	66.343	-	-	-	-	-	-	-	Continuing	Continuing
53Z: Armed Scout Helicopter	-	4.867	3.464	-	-	-	-	-	-	-	Continuing	Continuing

[#] The FY 2015 OCO Request will be submitted at a later date.

Note

Army

Change Summary Explanation:

No FY15 funds requested.

A. Mission Description and Budget Item Justification

The Project 538 funding line develops, integrates and tests modifications which will allow the Kiowa Warrior (KW) to continue to safely serve as the Army's armed reconnaissance aviation capability until replaced/retired. An ACAT II program, OH-58F KW Cockpit and Sensor Upgrade Program (CASUP), was established to address capability shortfalls, obsolescence, and safety issues with the current fielded fleet and is required through 2025 and beyond. KW CASUP current program baseline is not the alternative solution to meet the Armed Scout Helicopter (Project 53Z) capability.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	90.494	73.309	38.727	-	38.727
Current President's Budget	80.934	69.807	-	-	-
Total Adjustments	-9.560	-3.502	-38.727	-	-38.727
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-3.502			
Congressional Rescissions	-	-			
Congressional Adds	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	-			
Other Adjustments 3	-9.560	-	-38.727	-	-38.727

PE 0604220A: Armed, Deployable Helos

Page 1 of 13

Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2015 A	rmy							Date: Mar	ch 2014	
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604220A / Armed, Deployable Helos PE 0604220A / Armed, Deployable Helos					lumber/Name) va Warrior		
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
538: Kiowa Warrior	-	76.067	66.343	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

^{*}The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The OH-58D Kiowa Warrior (KW) 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 (MMS) 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. Sensor imagery from compatible Unmanned Aerial Systems (UAS) and manned aircraft can be received and relayed to other aircraft or ground stations. The Active Army and the National Guard fly Kiowa Warriors.

Funding develops, integrates and gualifies modifications to support Kiowa Warrior missions. The ACAT II KW Cockpit and Sensor Upgrade Program (CASUP) will convert the OH-58D to the OH-58F configuration, and allow it to continue to safely serve as the Army's armed reconnaissance, aviation platform through its operational service life. Efforts include upgrading Control Display System (CDS) mission computers, avionics, intercom system, aircraft survivability systems, weapon systems, electrical systems, and cockpit instruments and displays, reducing weight and obsolescence, structural modifications, and replacing single with dual channel Full Authority Digital Electronic Control (FADEC), the MMS with the nose mounted AN/AAS-53 Common Sensor Payload (CSP) which is common with the Gray Eagle Unmanned Aerial Vehicle (UAV). Training Aids, Devices, Simulators and Simulations (TADSS) will be upgraded to maintain concurrency.

Additionally, the funding will incorporate required design improvements by Engineering Change Proposal (ECP) to the Single Channel FADEC Upgrade Electronic Control Unit (SCFU ECU) to improve safety and reliability of the OH-58D engine fuel control.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Development and Integration	45.274	32.632	-
Articles:	-	-	-
Description: Development and Integration Efforts			
FY 2013 Accomplishments:			
Development and Integration Efforts			
FY 2014 Plans:			
Development and Integration Efforts			
Title: Engineering Support Activities	17.550	17.512	-

PE 0604220A: Armed, Deployable Helos

UNCLASSIFIED Page 2 of 13

				UNCLAS	SII ILD						
Exhibit R-2A, RDT&E Project Justif	ication: PB	2015 Army							Date: N	larch 2014	
Appropriation/Budget Activity 2040 / 5						ment (Numb med, Deploy			t (Number/N Kiowa Warrio		
B. Accomplishments/Planned Prog	rams (\$ in I	Millions, Art	ticle Quantit	ties in Each).				FY 2013	FY 2014	FY 2015
							A	rticles:	-	-	-
Description: Engineering Support Ad	ctivities										
FY 2013 Accomplishments: Engineering Support Activities											
FY 2014 Plans: Engineering Support Activities											
Title: Test and Evaluation							А	rticles:	6.615	10.170 -	-
Description: Test and Evaluation											
FY 2013 Accomplishments: Test and Evaluation											
FY 2014 Plans: Test and Evaluation											
Title: Program Management							A	rticles:	6.628 -	6.029 -	-
Description: Program Management											
FY 2013 Accomplishments: Program Management											
FY 2014 Plans: Program Management											
				Accor	nplishment	s/Planned P	rograms Su	btotals	76.067	66.343	-
C. Other Program Funding Summa	ry (\$ in Milli	ons)									
			FY 2015	FY 2015	FY 2015					Cost To	
Line Item • (AZ2200): Kiowa Warrior (AZ2200)	FY 2013 192.484	FY 2014 184.044	Base -	<u>oco</u>	<u>Total</u>	FY 2016	FY 2017	FY 201	8 FY 201	9 Complete	Total Cos 376.52
• (A22200): Klowa Warnor (A22200) • (A02345): Klowa WRA (A02345)	183.900	117.000	-	-	-	-	-	-	- 	-	300.90

PE 0604220A: *Armed, Deployable Helos* Army

Page 3 of 13

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 5	PE 0604220A I Armed, Deployable Helos	538 / Kiowa	a Warrior

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

<u>FY 2015</u> <u>FY 2015</u> <u>FY 2015</u> <u>Cost To</u>

<u>Line Item</u> <u>FY 2013 FY 2014</u> <u>Base</u> <u>OCO</u> <u>Total</u> <u>FY 2016</u> <u>FY 2017 FY 2018</u> <u>FY 2019 Complete</u> <u>Total Cost</u>

Remarks

Funding will procure and install modification kits and components on the Kiowa Warrior (KW).

D. Acquisition Strategy

The Government serves as the system integrator managing multiple contracts and government agencies.

E. Performance Metrics

N/A

PE 0604220A: *Armed, Deployable Helos* Army

Page 4 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army Date: March 2014

Appropriation/Budget Activity R-1 Program Element (Number/Name) 2040 / 5

Project (Number/Name) PE 0604220A I Armed, Deployable Helos 538 I Kiowa Warrior

Management Service	Management Services (\$ in Millions)			FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Program Management	Various	Various Activities : Various Activities	21.802	6.628	Jan 2013	6.029	Jan 2014	-		-		-	-	34.459	-
		Subtotal	21.802	6.628		6.029		-		-		-	-	34.459	-

Remarks

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

Product Developme	ent (\$ in M	illions)		FY 2	2013	FY 2	2014		2015 ase		2015 CO	FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Integration	Various	Various Activities : Honeywell Inc. / PIF/ BHTI	220.759	45.274	Nov 2012	32.632	Nov 2013	-		-		-	-	298.665	-
		Subtotal	220.759	45.274		32.632		-		-		-	-	298.665	-

Remarks

Funding will provide both contractor and in-house development and integration efforts. Development and Integration activities will be performed by Honeywell Inc, Prototype Integration Facility and Bell Helicopter Textron Inc.

Support (\$ in Million	s)			FY 2	2013	FY 2	2014	FY 2 Ba		FY 2	2015 CO	FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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 : AMRDEC, AED & SED	34.795	17.550	Mar 2013	17.512	Mar 2014	-		-		-	-	69.857	-
		Subtotal	34.795	17.550		17.512		-		-		-	-	69.857	-

Remarks

Army

Funding will provide engineering support activities performed by Aviation and Missile Research and Development Center (AMRDEC), Aviation Engineering Directorate (AED) and Software Engineering Directorate (SED).

PE 0604220A: Armed, Deployable Helos

Page 5 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army Date: March 2014 **Appropriation/Budget Activity** R-1 Program Element (Number/Name) Project (Number/Name) PE 0604220A I Armed, Deployable Helos 538 I Kiowa Warrior

FY 2015 FY 2015 FY 2015 Test and Evaluation (\$ in Millions) FY 2013 FY 2014 Base oco Total Contract Target Method Performing Prior Award Award Award Award **Cost To Total** Value of **Activity & Location** Complete Contract **Cost Category Item** & Type Years Cost Date Cost Date Cost Date Cost Date Cost Cost Various Activities : Test and Evaluation RTC, AATD, DTC, 7.769 6.615 Feb 2013 10.170 Feb 2014 24.554 Various OTC 7.769 6.615 10.170 24.554 Subtotal

Remarks

2040 / 5

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

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	285.125	76.067	66.343	-	-	-	-	427.535	-

Remarks

Army

PE 0604220A: Armed, Deployable Helos

Page 6 of 13

Exhibit R-4, RDT&E Schedule Profile: PB 2	.013 Ailily					1		Date:	_		17	
Appropriation/Budget Activity		R-1 Program Element (Number/Name) Project (
2040 / 5		PE 0604220A I Armed, Deployable Helos 538 I Kio										
	FY 2013	FY 2014	FY 2015	FY 2016	FY	2017		FY 20	18		FY 2	2019
	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
Development/Integration Contracts							,					
Test and Evaluation												

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 5	PE 0604220A I Armed, Deployable Helos	538 / Kiow	a Warrior

Schedule Details

	St	art	Eı	nd
Events	Quarter	Year	Quarter	Year
Development/Integration Contracts	4	2008	2	2015
Test and Evaluation	4	2010	4	2016

Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2015 A	Army		,					Date: Mare	ch 2014		
Appropriation/Budget Activity 2040 / 5		_	am Elemen 20A / Armed	•	•		(Number/Name) med Scout Helicopter						
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
53Z: Armed Scout Helicopter	-	4.867	3.464	-	-	-	-	-	-	-	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	_			

^{*} The FY 2015 OCO Request will be submitted at a later date.

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/F Kiowa Warrior fleet.

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, agility, lethality, and sustainability to ensure interoperability over extended ranges. The platform enhances mission effectiveness throughout the operational environment, and focuses 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.

No funding was appropriated in the FY14 budget.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: AAS AoA and Milestone Support/Risk Reduction	4.867	3.464	-
Articles:	-	-	-
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: AAS AoA and Milestone support			
FY 2014 Plans:			
AAS AoA and Milestone support			
Accomplishments/Planned Programs Subtotals	4.867	3.464	-

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

N/A

Army

Remarks

PE 0604220A: Armed, Deployable Helos

Page 9 of 13

Exhibit R-2A, RDT&E Project Justification: PB 2015 A	Army	Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604220A I Armed, Deployable Helos	Project (Number/Name) 53Z I Armed Scout Helicopter
D. Acquisition Strategy	TE 0004220/17/Illieu, Deployable Helios	coz 17 limea codal Fichopter
Not applicable for this item.		
E. Performance Metrics		
N/A		

PE 0604220A: *Armed, Deployable Helos* Army

Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	2015 Army	/								Date:	March 20	14				
Appropriation/Budge 2040 / 5					l umber/N eployable			ct (Number/Name) Armed Scout Helicopter										
Product Developmen	nt (\$ in M	illions)		FY 2	:013	FY 2	2014		2015 ise		2015 CO	FY 2015 Total						
Cost Category Item	Contract Method & Type	Performing Activity & Location			Award		Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract						
Voluntary Flight Demonstration	Various	Various : Various	7.940	-		-		-		-		-	-	7.940	-			
		Subtotal	7.940	-		-		-		-		-	-	7.940	-			
Support (\$ in Millions	s)			FY 2	013	FY 2	2014	FY 2	2015 ise		2015 CO	FY 2015 Total						
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract			
AAS AoA and Milestone Support/Risk Reduction	Various	Various : Various	9.025	4.867		-		-		-		-	-	13.892	-			
Requirement Development	TBD	Various : Various	0.000	-		3.464		-		-		-	-	3.464	-			
		Subtotal	9.025	4.867		3.464		-		-		-	-	17.356	-			
			Prior Years	FY 2	2013	FY 2	2014	FY :	2015 ise		2015 CO	FY 2015 Total	Cost To	Total Cost	Target Value of Contract			
		Project Cost Totals	16.965	4.867		3.464		-		-		-	-	25.296	-			

Remarks

PE 0604220A: Armed, Deployable Helos Army

UNCLASSIFIED Page 11 of 13

Exhibit R-4, RDT&E Schedule Profile: PB 2015	Army	/																				Dat	e: M	arch	20	14		
Appropriation/Budget Activity 2040 / 5							R-1 Program Element (Number/Name) PE 0604220A I Armed, Deployable Helos Project (Number/Name) 53Z I Armed Scout Helicopter																					
		FY	2013	3		FY 2	014			FY 2	2015	5		FY	2016			FY 2	2017	,		FY 2018 FY 2019						
	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
VOLUNTARY FLIGHT DEMONSTRATION							,									,			,									
MILESTONE SUPPORT and RISK REDUCTION					I																							

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 5	PE 0604220A I Armed, Deployable Helos	53Z I Arme	ed Scout Helicopter

Schedule Details

	St	art	End				
Events	Quarter	Year	Quarter	Year			
VOLUNTARY FLIGHT DEMONSTRATION	3	2012	2	2013			
MILESTONE SUPPORT and RISK REDUCTION	3	2012	4	2013			