

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>		PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-58D</b>							
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	217203	181145	135652	99390					633390
538 KIOWA WARRIOR	29000								29000
53H ARMED RECONNAISSANCE HELICOPTER (ARH)	188203	181145	135652	99390					604390

**A. Mission Description and Budget Item Justification:** The mission of the ARH is to provide a robust reconnaissance and security capability for the Joint Combined arms air-ground maneuver team. The ARH is a combination of a modified off-the-shelf (OTS) airframe integrated with a non-development item (NDI) mission equipment package (MEP). The ARH will be fielded to support current forces in the Global War on Terror (GWOT) and will possess the growth potential to bridge the capability gaps to Future Combat Force. The ARH will be a direct replacement for the aging OH58D Kiowa Warrior fleet.

The rapidly reconfigurable ARH provides the space, weight, and power to incorporate the MEP, as Mission, Enemy, Terrain, Troops available, Time and Civilian considerations (METT\_TC) dictates, for use in High/hot (4K/95°F with growth potential to 6K/95°F) conditions, complex terrain, and urban environments. The MEP provides a robust communications and navigation suite, advanced state-of-the-art sensor assembly, and self-defense armament capability to fight for, collect, and distribute critical information to all members of the Joint air-ground maneuver team. Specifically, the ARH's robust communication suite when combined with the sensors assembly provides real time delivery of actionable combat information to the joint force while enabling precision employment of Joint sensors and fires.

The ARH 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 of ARH 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.

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY  
**5 - System Development and Demonstration**

PE NUMBER AND TITLE  
**0604220A - Armed, Deployable OH-58D**

<u><b>B. Program Change Summary</b></u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	131315	82310	13027
Current BES/President's Budget (FY 2009)	217203	181145	135652
Total Adjustments	85888	98835	122625
Congressional Program Reductions		-1165	
Congressional Rescissions			
Congressional Increases		100000	
Reprogrammings	89584		
SBIR/STTR Transfer	-3696		
Adjustments to Budget Years			122625

Change Summary Explanation: Funding - FY 07, FY 08 & FY 09 Increases made in support of the Armed Reconnaissance Helicopter (FY 07 +85888; FY 08 +98835; FY 09 +122625).

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2008**

<b>BUDGET ACTIVITY</b> <b>5 - System Development and Demonstration</b>		<b>PE NUMBER AND TITLE</b> <b>0604220A - Armed, Deployable OH-58D</b>						<b>PROJECT</b> <b>53H</b>	
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
53H ARMED RECONNAISSANCE HELICOPTER (ARH)	188203	181145	135652	99390					604390

**A. Mission Description and Budget Item Justification:** The mission of the Armed Reconnaissance Helicopter (ARH) is to provide a robust reconnaissance and security capability for the Joint Combined arms air-ground maneuver team. The ARH is a combination of a modified off-the-shelf (OTS) airframe integrated with a non-development item (NDI) mission equipment package (MEP). The ARH will be fielded to support current forces in the Global War on Terror (GWOT) and will possess the growth potential to bridge the capability gaps to Future Combat Force. The ARH will be a direct replacement for the aging OH58D Kiowa Warrior fleet.

The rapidly reconfigurable ARH provides the space, weight, and power to incorporate the MEP, as Mission, Enemy, Terrain, Troops available, Time and Civilian considerations (METT\_TC) dictates, for use in High/hot (4K/95°F with growth potential to 6K/95°F) conditions, complex terrain, and urban environments. The MEP provides a robust communications and navigation suite, advanced state-of-the-art sensor assembly, and self-defense armament capability to fight for, collect, and distribute critical information to all members of the Joint air-ground maneuver team. Specifically, the ARH's robust communication suite when combined with the sensors assembly provides real time delivery of actionable combat information to the joint force while enabling precision employment of Joint sensors and fires.

The ARH 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 of ARH 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.

The System Development and Demonstration (SDD) Phase has experienced schedule delays and cost overruns. Initially, the SDD program was delayed due to difficulties with design completion, build of the prototype aircraft, and execution of the Limited Users Test (LUT). A program restructure is currently under review by the Army and OSD. Key risk mitigating components of the restructure include a 2 year program extension, a well defined aircraft / component qualification process, and the addition of a second LUT (1st LUT is complete).

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 53H.

<b><u>Accomplishments/Planned Program:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Aircraft System Development and Demonstration	160326	141365	101582

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2008**

<b>BUDGET ACTIVITY</b> <b>5 - System Development and Demonstration</b>	<b>PE NUMBER AND TITLE</b> <b>0604220A - Armed, Deployable OH-58D</b>			<b>PROJECT</b> <b>53H</b>		
Engineering Support Activities	9743	20636	13705			
Test and Evaluation	6884	10802	12795			
Program Management	6182	8342	7570			
Small Business Innovative Research/Small Business Technology Transfer Program (SBIR/STTR)	5068					
<b>Total</b>	<b>188203</b>	<b>181145</b>	<b>135652</b>			

<b><u>B. Other Program Funding Summary</u></b>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
A04203 ARMED RECONNAISSANCE HELICOPTER	75	174571	438851	507052	593466	582407	589214	2240939	5126575

Comment:

**C. Acquisition Strategy** The Milestone B Acquisition Decision Memorandum (ADM) was signed on 27 July 2005. The Armed Reconnaissance Helicopter (ARH) program is currently in the Systems Development and Demonstration (SDD) phase. A Limited User Test (LUT) was completed in 1st Quarter FY 2008.

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
<b>5 - System Development and Demonstration</b>			<b>0604220A - Armed, Deployable OH-58D</b>							<b>53H</b>		
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
Aircraft Subsystem Integration	CPIF	Various	137965	165394	1-3Q	141365	1-3Q	101582	1-3Q	64993	611299	
Subtotal:			137965	165394		141365		101582		64993	611299	
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
Engineering Support Activities	Various	Various	10978	9743	1-3Q	20636	1-3Q	13705	1-3Q	14397	69459	
Subtotal:			10978	9743		20636		13705		14397	69459	
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
Test and Evaluation	MIPR	Various Activities	8688	6884	1-3Q	10802	1-3Q	12795	1-3Q	11960	51129	
Subtotal:			8688	6884		10802		12795		11960	51129	
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
Program Management	Various	ARH Internal Operating Budget, Matrix Support and Support Contracts	9753	6182	1-4Q	8342	1-4Q	7570	1-4Q	8040	39887	
Subtotal:			9753	6182		8342		7570		8040	39887	

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-58D</b>						PROJECT <b>53H</b>		
<b>Project Total Cost:</b>	<b>167384</b>	<b>188203</b>		<b>181145</b>		<b>135652</b>		<b>99390</b>	<b>771774</b>

--	--	--	--	--	--	--	--	--	--

# Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY  
**5 - System Development and Demonstration**

PE NUMBER AND TITLE  
**0604220A - Armed, Deployable OH-58D**

PROJECT  
**53H**

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
(1) Limited User Test					▲ LUT																							
(2) Milestone C									▲ MS C																			
(3) Limited User Test II													▲ LUT II															
(4) Initial Operational Test & Evaluation																	▲ IOTE											
(5) Full Rate Production Decision Review																					▲ FRP DR							
(6) First Unit Equipped																					▲ FUE							

**Schedule Detail (R4a Exhibit)**

**February 2008**

BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>		PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-58D</b>					PROJECT <b>53H</b>	
<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>	
Milestone B								
Contract Award								
Limited User Test		1Q						
Milestone C		3Q						
Limited User Test II			2Q					
Initial Operational Test & Evaluation				3Q				
Full Rate Production Decision Review					1Q			
First Unit Equipped					4Q			

Milestone B occurred 4th Quarter FY 2005 (07 Jul 2005) as well as Contract Award for System Development and Demonstration (SDD) (29 Jul 2005).

<b>Termination Liability Funding For Major Defense Acquisition Programs, RDT&amp;E Funding (R5)</b>	<b>February 2008</b>
---	----------------------

BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-58D</b>	PROJECT <b>53H</b>
--	---	-----------------------

Funding in \$000							
Program	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Armed Reconnaissance Helicopter (ARH)	165394	132310	95631	60700			
<b>Total Termination Liability Funding:</b>	165394	132310	95631	60700			

