

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

February 2005

## BUDGET ACTIVITY

### 5 - System Development and Demonstration

## PE NUMBER AND TITLE

0604220A - Armed, Deployable OH-5D

COST (In Thousands)	FY 2004 Actual	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	0	43366	13964	0	0	0	0	0	0	59089
538 KIOWA WARRIOR LFTE	0	14366	0	0	0	0	0	0	0	16125
53H ARMED RECONNAISSANCE HELICOPTER (ARH)	0	29000	13964	0	0	0	0	0	0	42964

**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 2005****BUDGET ACTIVITY****5 - System Development and Demonstration****PE NUMBER AND TITLE****0604220A - Armed, Deployable OH-58D**

<b><u>B. Program Change Summary</u></b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Previous President's Budget (FY 2005)	20000	0	0
Current Budget (FY 2006/2007 PB)	43366	13964	0
Total Adjustments	23366	13964	0
Net of Program/Database Changes			
Congressional Program Reductions	-5221		
Congressional Rescissions			
Congressional Increases			
Reprogrammings	29000		
SBIR/STTR Transfer	-413		
Adjustments to Budget Years		13964	

Change Summary Explanation: Funding - FY 05 & 06: Increases made in support of the Armed Reconnaissance Helicopter (FY 05 +29000; FY 06 +13964).

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>							<b>February 2005</b>			
<b>BUDGET ACTIVITY</b> <b>5 - System Development and Demonstration</b>				<b>PE NUMBER AND TITLE</b> <b>0604220A - Armed, Deployable OH-5</b>				<b>PROJECT</b> <b>53</b>		
COST (In Thousands)	FY 2004 Actual	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
538      KIOWA WARRIOR LFTE	0	14366	0	0	0	0	0	0	0	16125
<p><b><u>A. Mission Description and Budget Item Justification:</u></b> 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.</p> <p>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.</p> <p>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.</p>										
<b><u>Accomplishments/Planned Program</u></b>						FY 2004	FY 2005	FY 2006	FY 2007	
Program support for Milestone review preparation & source selection.						0	3202	0	0	
Aircraft subsystem integration and testing efforts.						0	10667	0	0	
Operational Testing and Support						0	497	0	0	
Totals						0	14366	0	0	

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

February 2005

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

PE NUMBER AND TITLE  
**0604220A - Armed, Deployable OH-5**

PROJECT  
**53**

<b>B. Other Program Funding Summary</b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
A04203 -KW Replacement	0	0	70000	198845	399164	579039	555045	555597	0	2357690

**C. Acquisition Strategy:** Armed Reconnaissance Helicopter (ARH) is a new start program with milestone preparation, source selection, contract award, and SDD activities planned in FY 05.

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604220A - Armed, Deployable OH-5D					PROJECT 53		
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
a . Aircraft Subsystem Integration and Testing Efforts	Cost Plus Incentive Fee	Pending Source Selection	0	10667	3Q	0		0		0	10667	0
Subtotal:			0	10667		0		0		0	10667	0
II. Support Cost	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
Subtotal:			0	0		0		0		0	0	0

ARMY RDT&E COST ANALYSIS(R3)										February 2005		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604220A - Armed, Deployable OH-5					53		
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
a . Operational Testing and Support	MIPR	Various Activities	0	497	1-3Q	0		0		0	497	0
Subtotal:			0	497		0		0		0	497	0
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
a . Program Support for Milestone Review Preparation & Source Selection	Various	PMO ARH, Matrix, Other Government Agencies.	0	3202	1-4Q	0		0		0	3202	0
Subtotal:			0	3202		0		0		0	3202	0
Project Total Cost:			0	14366		0		0		0	14366	0

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>							<b>February 2005</b>			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-5□D</b>				PROJECT <b>53H</b>		
COST (In Thousands)	FY 2004 Actual	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
53H     ARMED RECONNAISSANCE HELICOPTER (ARH)	0	29000	13964	0	0	0	0	0	0	42964
<p><b><u>A. Mission Description and Budget Item Justification:</u></b> 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.</p> <p>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.</p> <p>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.</p>										
<b><u>Accomplishments/Planned Program</u></b>							FY 2004	FY 2005	FY 2006	FY 2007
Program Support for Milestone Review Preparation & Source Selection							0	6464	5271	0
Aircraft Subsystem Integration and Testing Efforts							0	21533	6443	0
Operational Testing and Support							0	1003	2250	0
Totals							0	29000	13964	0

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)								February 2005		
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-5D</b>				PROJECT <b>53H</b>	
<b>B. Other Program Funding Summary</b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
A04203 HELICOPTER, OBSERVATION, Kiowa Warrior Replacement	0	0	70000	198845	399164	579039	555045	555597	0	2357690
<p><b>C. Acquisition Strategy:</b> The Armed Reconnaissance Helicopter (ARH) program is a new start program. A MS B review is scheduled for June 2005. A MS C review for an LRIP decision is scheduled in FY06.</p>										



ARMY RDT&E COST ANALYSIS(R3)									February 2005				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604220A - Armed, Deployable OH-5D					53H			
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	
a . Aircraft Subsystem Integration and Testing Efforts	Cost Plus Incentive Fee	Pending Source Selection	0	21533	3Q	6443	1-3Q	0		0	27976	0	
Subtotal:			0	21533		6443		0		0	27976	0	
II. Support Cost	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	
Subtotal:			0	0		0		0		0	0	0	

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-5</b>					PROJECT <b>53H</b>		
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
a . Operational Testing and Support	MIPR	Various Activities	0	1003	1-3Q	2250	1-3Q	0		0	3253	0
Subtotal:			0	1003		2250		0		0	3253	0
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
a . Program Support for Milestone Review Preparation & Source Selection	Various	PMO ARH, Matrix, Other Government Agencies	0	6464	1-4Q	5271	1-4Q	0		0	11735	0
Subtotal:			0	6464		5271		0		0	11735	0
Project Total Cost:			0	29000		13964		0		0	42964	0

<b>Schedule Detail (R4a Exhibit)</b>						<b>February 2005</b>		
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604220A - Armed, Deployable OH-5□D</b>			PROJECT <b>53H</b>	
<u><b>Schedule Detail</b></u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone B		3Q						
Milestone C			4Q					
Full Rate Production (FRP)					3Q			
First Unit Equipped (FUE)					4Q			
System Development and Demonstration (SDD)/Testing		3-4Q	1-4Q	1-4Q	1-2Q			