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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development	PE 0203744A / Aircraft Modifications/Product Improvement Programs											
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
Total Program Element	-	201.504	239.696	264.887	-	264.887	256.677	223.993	250.129	326.542	Continuing	Continuing
430: Impr Cargo Helicopter	-	63.835	33.220	35.424	-	35.424	47.046	43.944	44.740	63.275	Continuing	Continuing
504: Black Hawk Recapitalization/Modernization	-	25.985	79.880	65.217	-	65.217	45.880	24.744	45.807	99.132	Continuing	Continuing
D17: Apache Block III	-	110.802	124.764	124.099	-	124.099	113.329	52.455	21.537	32.244	-	579.230
D18: Fixed Wing Aircraft	-	0.882	1.832	0.819	-	0.819	1.175	0.997	1.087	2.273	-	9.065
EB1: Improved Turbine Engine Program	-	-	-	39.328	-	39.328	49.247	101.853	136.958	129.618	-	457.004

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

A. Mission Description and Budget Item Justification

FY 2015 budget request funds aviation development of modifications and improvements for the Improved Cargo Helicopter (ICH), the UH-60L Black Hawk Recapitalization/Modernization, Apache Block III, and Fixed Wing Aircraft.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	280.247	257.187	334.521	-	334.521
Current President's Budget	201.504	239.696	264.887	-	264.887
Total Adjustments	-78.743	-17.491	-69.634	-	-69.634
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-17.491			
• Congressional Rescissions	-78.743	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-69.634	-	-69.634

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 430 / Impr Cargo 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
430: Impr Cargo Helicopter	-	63.835	33.220	35.424	-	35.424	47.046	43.944	44.740	63.275	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Not applicable for this item.												
A. Mission Description and Budget Item Justification												
The CH-47 Chinook is the only heavy lift helicopter for the Army and is an essential element of the current Army Aviation master plan. This program funds improvements to the CH-47F System that include: T55-GA-714A engine control and component upgrades to increase power to support emerging 6K/95 requirements, continued development and testing of the Advanced Chinook Rotor Blades (ACRB) which will provide increased lift in high/hot conditions and reduce O&S costs. Production of the ACRB will begin in FY 2017. Funding also initiates advanced flight control and drive train component improvements to improve aircraft performance. Development of requirements specifications, studies and risk reduction prototyping are also part of this effort.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: 714 Engine Component Improvement Program									2.621	9.685	-	
									Articles: -	-	-	
Description: Included in the Engine Component Improvement Program are improvements that address improved performance, reduced maintenance burden for better maintainability for the Soldier, improved safety, and increased reliability leading to reduced O&S costs. Improvements include improved component designs/updates and electronic control unit software.												
FY 2013 Accomplishments: Included in the Engine Component Improvement Program are improvements that address increased maintainability, improved safety, and increased reliability leading to reduced O&S costs. Improvements include component design/updates and updated electronic control unit software.												
FY 2014 Plans: Included in the Engine Component Improvement Program are improvements that address increased maintainability, improved safety, and increased reliability leading to reduced O&S costs. Improvements include component design/updates and related component design and improved electronic control unit software.												
Title: Electronic Control Unit (ECU) Software Upgrade									-	-	3.505	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) 430 / Impr Cargo Helicopter	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Description: This effort is to develop, generate, and qualify the latest software version of the T55-GA-714A Electronic Control Unit. Effort will correct any deficiencies noted in the field and/or incorporate upgrades as needed. FY 2015 Plans: This effort is to develop, generate, and qualify the latest software version of the T55-GA-714A Electronic Control Unit. Effort will correct any deficiencies noted in the field and/or incorporate upgrades as needed.			
Title: Ratio Detector Power Supply (RDPS) Description: This effort will consist of design, development, and qualification of a replacement T55-GA-714A Engine Ratio Detector Power Supply (RDPS) to alleviate obsolescence issues with the current system. FY 2015 Plans: This effort will consist of design, development, and qualification of a replacement T55-GA-714A Engine Ratio Detector Power Supply (RDPS) to alleviate obsolescence issues with the current system.		-	2.665
Title: Airframe Component Improvement Program Description: Included in the Airframe Component Improvement Program are the continued development and flight testing of the Advanced Chinook Rotor Blade (ACRB) and development of advanced flight control and drive train components. The ACIP will also assess potential improvements to the, fuel system, and structural improvements for improved aircraft performance, aircraft weight reduction, and reduction of O&S costs. FY 2013 Accomplishments: Included in these efforts are development and testing of the Advanced Chinook Rotor Blade (ACRB) that will result in significant performance improvements such as providing approximately 1,975 lbs of additional lift, improving erosion protection, and reducing O&S costs. Funding also continues component development of advanced flight controls, drive train, and fuel system to increase aircraft performance, reduce aircraft weight, and reduce O&S costs. FY 2014 Plans: Included in these efforts are development and testing of the Advanced Chinook Rotor Blade (ACRB) that will result in significant performance improvements such as providing approximately 1,975 lbs of additional lift, improving erosion protection, and reducing O&S costs. Funding continues airframe weight reductions and component development of advanced flight controls, drive train, rotor system, and fuel system to increase aircraft performance, reduce aircraft weight, and reduce O&S costs.		58.022	21.874
		-	-
Title: Systems Engineering		-	8.863

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Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs		Project (Number/Name) 430 / Impr Cargo Helicopter
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Description: This effort provides the systems engineering approach to ensure successful integration of upgrades at the platform level to realize efficiencies and reduce costs. FY 2015 Plans: This effort provides the systems engineering approach to ensure successful integration of upgrades at the platform level to realize efficiencies and reduce costs.				
Title: Advanced Chinook Rotor Blade (ACRB) Description: This effort provides an Advanced Chinook Rotor Blade which is a redesign of the current rotor blade to provide increased hover lift in payload capability. It improves high/hot performance and is a Form, Fit, Function replacement for the legacy blade. FY 2015 Plans: This effort provides an Advanced Chinook Rotor Blade which is a redesign of the current rotor blade to provide increased hover lift in payload capability. It improves high/hot performance and is a Form, Fit, Function replacement for the legacy blade. This effort covers final fabrication, test and qualification of the ACRB.		-	-	16.578
Title: Testing and Evaluation Description: This effort incorporates all testing requirements to integrate numerous Engineering Change Proposals (ECPs) into one system level requirement to include Advanced Chinook Rotor Blade (ACRB). FY 2015 Plans: This effort incorporates all testing requirements to integrate numerous Engineering Change Proposals (ECPs) into one system level requirement to include Advanced Chinook Rotor Blade (ACRB).		-	-	2.042
Title: In-house and Program Management Administration Description: This funding provides support costs for various government agencies. FY 2013 Accomplishments: This funding provides future support costs for various government agencies. FY 2014 Plans: This funding provides future support costs for various government agencies. FY 2015 Plans:		Articles: 3.192 -	1.661 -	1.771 -

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Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 430 / Impr Cargo Helicopter				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)												
This funding provides future support costs for various government agencies.										FY 2013	FY 2014	FY 2015
Accomplishments/Planned Programs Subtotals										63.835	33.220	35.424
C. Other Program Funding Summary (\$ in Millions)												
Line Item	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	
• AA0252: CH-47 CARGO HELICOPTER MODS	90.487	149.764	32.092	-	32.092	147.856	164.074	503.948	91.142	Continuing	Continuing	
• A05105: CH-47 SLEP (Including Adv Proc)	632.564	669.053	758.622	-	758.622	772.020	748.591	165.047	235.829	Continuing	Continuing	
• A05008: CH-47 CARGO HELICOPTER NEW BUILD	756.441	606.973	236.243	-	236.243	350.336	0.199	-	-	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The CH-47F program replaces one for one, the aging CH-47D aircraft by FY2020, incorporates a new machined airframe, and includes a new Common Avionics Architecture System (CAAS) cockpit with digital communication/navigation capability allowing improved interoperability on the digital battlefield. The CH-47F program includes recapitalization of key dynamic components, bringing them to a near zero time.												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 430 / Impr Cargo Helicopter					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
714 Engine Component Improvement Program	SS/CPFF	Honeywell : Phoenix, AZ	7.900	2.621	Mar 2013	9.685		-		-		-	Continuing	Continuing	Continuing
Electronic Control Unit (ECU) Software Upgrade	SS/CPFF	Honeywell : Phoenix, AZ	0.000	-		-		3.505	May 2015	-		3.505	Continuing	Continuing	Continuing
Ratio Detector Power Supply (RDPS)	SS/CPFF	Boeing : Ridley Park, PA	0.000	-		-		2.665	May 2015	-		2.665	Continuing	Continuing	Continuing
Airframe Component Improvement Program	SS/CPFF	Boeing : Ridley Park PA	47.239	58.022	Dec 2012	21.874		-		-		-	Continuing	Continuing	Continuing
System Engineering	SS/CPFF	Boeing : Ridley Park, PA	0.000	-		-		8.863	Jan 2015	-		8.863	Continuing	Continuing	Continuing
Advanced Chinook Rotor Blade (ACRB)	SS/CPFF	Boeing : Ridley Park, PA	0.000	-		-		16.578	Mar 2015	-		16.578	Continuing	Continuing	Continuing
Subtotal			55.139	60.643		31.559		31.611		-		31.611	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
PMO/OGA	Various	Various government : Redstone Arsenal AL	2.740	3.192	Mar 2013	1.661		1.771	Mar 2015	-		1.771	Continuing	Continuing	Continuing
Subtotal			2.740	3.192		1.661		1.771		-		1.771	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Testing of configuration update ECPs to include the Advanced Chinook Rotor Blades.	SS/CPFF	Boeing : Ridley Park PA	0.000	-		-		2.042	Dec 2014	-		2.042	Continuing	Continuing	Continuing
Subtotal			0.000	-		-		2.042		-		2.042	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army										Date: March 2014			
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs					Project (Number/Name) 430 / Impr Cargo Helicopter			
	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	57.879	63.835		33.220		35.424		-		35.424	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army

Date: March 2014

Appropriation/Budget Activity

2040 / 7

R-1 Program Element (Number/Name)

PE 0203744A / Aircraft Modifications/
Product Improvement Programs

Project (Number/Name)

430 / Impr Cargo Helicopter

[illegible]

Full Rate Production

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) 430 / Impr Cargo Helicopter

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Full Rate Production	2	2005	2	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization			
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
504: Black Hawk Recapitalization/Modernization	-	25.985	79.880	65.217	-	65.217	45.880	24.744	45.807	99.132	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 H-60L Digital BLACK HAWK is designed to update the existing H-60L analog architecture to a digital infrastructure enabling the upgraded aircraft to have a similar Pilot-Vehicle Interface (PVI) to the H-60M. The program will address current capability gaps and meet operational requirements by employing an evolutionary acquisition approach to leverage mature technologies that have been successfully integrated on other military aircraft. The program will reduce obsolescence and increase commonality and interoperability by installing a digital cockpit, bussing and upgrading the communication/identification suite, improving navigation guidance, and integrating Aircraft Survivability Equipment (ASE), digital moving map, and Joint Variable Message Format (JVMF) messaging.

The Improved Turbine Engine Program (ITEP) develops, tests, and qualifies the next generation turboshaft engine. The Improved Turbine Engine (ITE) replaces the existing T700 engine design originated in the 1970's and meets the operational requirement of 6K/95. The ITE will fit inside the existing engine bays of the Black Hawk and Apache Helicopters and provides a significant power enhancement of up to fifty percent (total of 3,000 shaft horsepower) with increased fuel efficiency. Additional benefits include improved design life, enhanced reliability, lower maintenance cost and restored capability lost due to aircraft weight growth, without increasing the logistics footprint. The program consists of system engineering and program management, detailed design engineering, design assurance, hardware manufacturing and testing, component and module level development and testing, system level testing and qualification, as well as integration into the airframe.

FY 2014 funds system engineering/program management, continuing component testing, and initial airframe integration efforts. All funding for ITEP for FY 2015 and beyond is located in Project Element (PE) 0203744A - Project EB1. UH-60L Digital will remain in Project 504. FY 2014 H-60L Digital (\$17.3M) funded within PE 0203744A. Funds required for systems engineering/program management and preliminary hardware and software development leading to up to program readiness for preliminary design review

FY 2015 UH-60L Digital funds hardware and software development as well as prototype support. Tasks include Preliminary Design Review and Critical Design Review and commencement of the first aircraft build.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2013	FY 2014	FY 2015
Title: ITEP	16.585	79.880	-
Articles:	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army								Date: March 2014					
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2013		FY 2014		FY 2015	
Description: Improved Turbine Engine Program (ITEP) - a multi-platform turbine engine improvement required across existing Army aircraft to fill the capability gaps for Army Aviation Operations. FY 2013 Accomplishments: Systems Engineering/Program Management requirements. Continue preparation for Milestone entry, development of contractor requirements package, and support to Analysis of Alternatives (AoA). FY 2014 Plans: Systems Engineering/Program Management requirements. Continue preparation for Milestone entry, development of contractor requirements package, initial airframe integration efforts and continued engine component testing.													
Title: UH-60L Digital Articles: Description: Provide an integrated digital map, integrated performance planning, common functionality and commonality of training with UH-60M. FY 2013 Accomplishments: Begin UH-60L Digital effort. Activity to support Material Development Decision (MDD), preparation for Milestone entry, development of contractor requirements package. FY 2015 Plans: Begin UH-60L cockpit digitization effort, an upgrade program to digitize UH-60L with integrated digital map, integrated performance planning, common Pilot Vehicle Interface (PVI) with UH-60M.								9.400 -		- -		65.217 -	
Accomplishments/Planned Programs Subtotals								25.985		79.880		65.217	
C. Other Program Funding Summary (\$ in Millions)													
Line Item		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	
• BLACK HAWK (Modifications) AA0492: BLACK HAWK (Modifications) AA0492		73.561	74.095	76.515	-	76.515	51.017	91.809	149.068	191.452	Continuing	Continuing	
Remarks AA0492 BLACK HAWK (Modifications) provides funding for the UH-60L Digital starting in FY 2018. This line also includes other post production modifications to the UH-60 A/L aircraft.													

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / <i>Aircraft Modifications/ Product Improvement Programs</i>	Project (Number/Name) 504 / <i>Black Hawk Recapitalization/ Modernization</i>
<p><u>D. Acquisition Strategy</u></p> <p>The UH-60L Digital program plans to leverage a Government-owned Government-operated (GOGO) facility to design, integrate and build 3 production representative aircraft. The GOGO facility uses a cost plus vehicle and will conduct full and open competition for the selection of the avionics solution provider.</p> <p><u>E. Performance Metrics</u></p> <p>N/A</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
ITEP SEPM - Organic	Various	PMO : Huntsville, AL	1.400	2.307	Dec 2012	3.400	Dec 2013	-		-		-	Continuing	Continuing	Continuing
ITEP SEPM - Contractor	Various	TBD : TBD	0.631	1.500	Dec 2012	2.400	Dec 2013	-		-		-	Continuing	Continuing	Continuing
ITEP SEPM - OGA	Various	PMO : Huntsville, AL	3.030	1.400	Dec 2012	9.300	Dec 2013	-		-		-	Continuing	Continuing	Continuing
UH-60L Digital - Organic	TBD	TBD : TBD	0.000	0.983	Mar 2013	-		3.603	Oct 2014	-		3.603	-	4.586	-
UH-60L Digital - Contractor	TBD	TBD : Various	0.000	0.243	Mar 2013	-		2.573	Oct 2014	-		2.573	-	2.816	-
Subtotal			5.061	6.433		15.100		6.176		-		6.176	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
UH-60L Digital Development Engineering	C/CPFF	TBD : Various	0.000	7.014		-		55.773	Oct 2014	-		55.773	Continuing	Continuing	Continuing
ITEP Air Vehicle Integration	SS/BOA	Various : Various	0.000	-		15.000	May 2014	-		-		-	-	15.000	-
Subtotal			0.000	7.014		15.000		55.773		-		55.773	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
ITEP Other OGA - AoA Development Support	Various	AMSAA : Huntsville, AL	0.650	0.678	Jan 2013	-		-		-		-	Continuing	Continuing	Continuing
UH-60 L Digital	Various	Huntsville, AL : Huntsville, AL	11.000	1.160	Apr 2013	-		3.168	Oct 2014	-		3.168	-	15.328	-
Subtotal			11.650	1.838		-		3.168		-		3.168	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization					
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
AATD/AATE Testing Support	Various	Various : Various	2.000	10.700	Jan 2013	49.780	Dec 2013	-		-		-	Continuing	Continuing	Continuing
UH-60: Digital	TBD	TBD : Various	0.000	-		-		0.100	Oct 2014	-		0.100	-	0.100	-
Subtotal			2.000	10.700		49.780		0.100		-		0.100	-	-	-
			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			18.711	25.985		79.880		65.217		-		65.217	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs			Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization

	FY 2013				FY 2014				FY 2015				FY 2016				FY 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
Improved Turbine Engine Program Systems Engineering/Program Management																												
UH-60L Digital (Development)																												
UH-60L Digital (Development) continued																												
UH-60L Digital (Trainers/Manuals Development) RDTE																												
UH-60L Digital Modifications (LRIP) APA																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) 504 / Black Hawk Recapitalization/ Modernization	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Improved Turbine Engine Program Systems Engineering/Program Management	1	2012	4	2014
UH-60L Digital (Development)	1	2013	4	2013
UH-60L Digital (Development) continued	1	2015	2	2018
UH-60L Digital (Trainers/Manuals Development) RDTE	3	2018	4	2020
UH-60L Digital Modifications (LRIP) APA	3	2018	4	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) D17 / Apache Block III			
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
D17: Apache Block III	-	110.802	124.764	124.099	-	124.099	113.329	52.455	21.537	32.244	-	579.230
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Not applicable for this item.												
A. Mission Description and Budget Item Justification												
The FY 2015 budget request for Apache Block III (AB3) will fund the non-recurring engineering (NRE), development, and testing work associated with the planned remanufacture and new build of 690 Apache aircraft in the Block III configuration (deliveries began in Oct 2011). The AB3 program consists of two Major Defense Acquisition Programs (MDAP), AB3A Remanufacture and AB3B New Build. This project also addresses obsolescence and reliability challenges and provides increased combat capability to the aircraft. Upgrades include: Unmanned Aircraft System (UAS) Level III-IV Control, Improved Situational Awareness, Upgraded Communications Suite, Improved Drive and Propulsion Systems, Improved Targeting Capability, Increased Computer Processing Capability and Speed, Improved Navigation Systems, and Improved Diagnostics and Maintainability. Upgrades are integrated as incremental block modifications. The program addresses operational shortfalls identified during real-world combat missions and meets Longbow Apache Capability Production Document (CPD) requirements for modernization.												
Funds will also provide for the development, integration and testing of the Modernized Rocket Launcher (MRL) with digital launcher electronics.												
.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Product Development									93.416	97.106	104.643	
									Articles: -	-	-	
Description: Funding is provided for the following efforts by Boeing, Longbow Limited Liability (LBL), and Lockheed Martin.												
FY 2013 Accomplishments:												
Development & Testing work associated with the planned remanufacture and new build of Apache aircraft in the Block III Lot 4-6 configuration and to enhance operational capabilities. Provides for development of the MRL.												
FY 2014 Plans:												
Development, Integration & Testing work associated with the planned remanufacture and new build of Apache aircraft in the Block III Lot 4-6 configuration (joint interoperability, crashworthy fuel tank kits, embedded diagnostics, communications, mission processor, and navigation upgrades) and to enhance operational capabilities. Risk reduction for Lot 6 CPD capabilities to include												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014		
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) D17 / Apache Block III		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
cognitive decision aiding, soldier radio waveform, modernized dayside assembly, modernized radio frequency interferometer, maritime targeting, and radar upgrades. - Provides NRE for design of the Hydra Launcher Electronics Assembly for development of the MRL. FY 2015 Plans: Development, Integration & Testing work associated with the planned remanufacture and new build of Apache aircraft in the Block III Lot 6 configuration (joint interoperability, crashworthy fuel tank kits, embedded diagnostics, communications, mission processor, and navigation upgrades) and to enhance operational capabilities. Risk reduction for Lot 6 CPD capabilities to include cognitive decision aiding, soldier radio waveform, modernized dayside assembly, modernized radio frequency interferometer, maritime targeting, and radar upgrades. - Provides NRE for design of the Hydra Launcher Electronics Assembly for development of the MRL.				
Title: Support Costs Articles: Description: Funding is provided for the following effort FY 2013 Accomplishments: GFE supporting AB3 tests FY 2014 Plans: GFE supporting AB3 tests FY 2015 Plans: GFE supporting AB3 tests and government R&D Facilities		6.862 -	10.376 -	4.183 -
Title: Test and Evaluation Articles: Description: Funding is provided for Development Testing and Evaluation and Operational Test and Evaluation FY 2013 Accomplishments: Development Test & Evaluation and Operational Test & Evaluation FY 2014 Plans: Development, Test & Evaluation, Operational Testing. Government test oversight, test ranges, flight hour costs for MRL testing. FY 2015 Plans:		8.930 -	7.780 -	5.318 -

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army								Date: March 2014			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) D17 / Apache Block III			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Development, Test & Evaluation, Operational Testing. Government test oversight, test ranges, flight hour costs for MRL testing.				
Title: Management Services		1.594	9.502	9.955
		Articles: -	-	-
Description: Funding is provided for the following effort				
FY 2013 Accomplishments: Payroll, TDY, Support Contractors, Matrix Support				
FY 2014 Plans: Payroll, TDY, Support Contractors, Matrix Support				
FY 2015 Plans: Payroll, TDY, Support Contractors, Matrix Support				
Accomplishments/Planned Programs Subtotals		110.802	124.764	124.099

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• AA6605: AH-64 MODS	178.805	53.559	181.869	-	181.869	127.873	139.936	127.372	147.515	Continuing	Continuing
• A05111: AH-64 APACHE BLOCK IIIA REMAN	684.822	759.400	651.347	-	651.347	1,203.115	1,272.837	1,370.040	1,101.971	Continuing	Continuing
• A05133: AH-64 APACHE BLOCK IIIB NEW BUILD	371.114	-	-	-	-	-	-	-	-	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The NRE will encompass subsystem integration and will utilize existing test aircraft, incorporate the technical insertions, and initiate appropriate qualification and operational flight-testing. The Low Rate Initial Production (LRIP) effort includes a total quantity of 51 aircraft, with deliveries completing in December 2013. These 51 LRIP aircraft will be used for operational testing, First Unit Equipped (FUE), and training base fielding.											
In Oct 2010, a contract for Apache Block III Lot 1 (8 aircraft) was awarded to initiate LRIP. In April 2012, additional options for Lot 2a (16 aircraft), Lot 2b (19 aircraft) and Lot 2c (8 aircraft) were definitized.											

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / <i>Aircraft Modifications/ Product Improvement Programs</i>	Project (Number/Name) D17 / <i>Apache Block III</i>
<p>In early 2012, the existing Engineering Manufacturing Development (EMD) effort was modified to incorporate development and testing to support the AB3 Lot 4 and Lot 6 production configurations.</p> <p>In FY14, a contract for Apache Block III Lot 3, initiating Full Rate Production, is planned with options for Lot 4 and will continue to a total of 690 remanufactured and new build aircraft.</p> <p>Training device concurrency will be maintained with each technical insertion. The EMD effort is managed as Cost Reimbursable. Production efforts will be awarded as Firm Fixed Price (FFP) and include the Advance Procurement requirements.</p> <p>In FY13, FY14, and FY15 MRL NRE will encompass US Government (USG) design of the Hydra Launcher Electronics Assembly (LEA), modification of the M261 launcher, launcher fabrication, and launcher testing.</p> <p>Multi-year authority may be requested for the out years.</p> <p><u>E. Performance Metrics</u> N/A</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) D17 / Apache Block III					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Management Services (In-House, Travel, etc.)	MIPR	PMO AAH, Matrix Support, AMCOM Express : Redstone Arsenal, AL	0.489	0.783		8.691		9.935	Dec 2014	-		9.935	Continuing	Continuing	Continuing
Management Services (In-House, Travel, etc)	MIPR	PEO Missiles & Space, Matrix Support, AMCOM Express, SETA : Huntsville, AL	0.000	0.811		0.811		0.020		-		0.020	Continuing	Continuing	-
Subtotal			0.489	1.594		9.502		9.955		-		9.955	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
The Boeing Company	SS/CPIF	Boeing Contracts : Mesa, AZ	131.184	83.516	Dec 2012	84.057	Dec 2013	97.031	Dec 2014	-		97.031	Continuing	Continuing	Continuing
Longbow Limited Liability (LBL) Contracts	SS/CPIF	Longbow Limited Liability (LBL) Contracts : Orlando, FL and Baltimore, MD	14.372	1.810		6.000		6.750	Dec 2014	-		6.750	Continuing	Continuing	Continuing
Lockheed Martin	SS/CPIF	Lockheed Martin Contracts : Orlando, FL	0.000	0.470		-		-		-		-	Continuing	Continuing	Continuing
Modernized Rocket Launcher Development - USG	MIPR	Various USG Activities : Various	0.000	6.860		6.598		0.862	Oct 2014	-		0.862	Continuing	Continuing	-
Boeing - MRL Platform SW and Integration	SS/CPIF	Boeing Company : Mesa, AZ	0.000	0.760		0.451		-		-		-	Continuing	Continuing	-
Subtotal			145.556	93.416		97.106		104.643		-		104.643	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs						Project (Number/Name) D17 / Apache Block III			
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Program Support Activities	MIPR	Various Activities : Various	14.791	6.862	Dec 2012	10.376		4.183	Nov 2014	-		4.183	Continuing	Continuing	Continuing
Subtotal			14.791	6.862		10.376		4.183		-		4.183	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Operational Assessments, Test Integration Working Group (TWIG), TEMP, etc.	MIPR	Various Activities : Various	19.655	8.700	Dec 2012	5.940		3.700	Nov 2014	-		3.700	Continuing	Continuing	Continuing
MRL Weapon Integration Lab, LFT, Qual Test, & Test Working Group	MIPR	AMRDEC : Huntsville, AL, Yuma Proving Grounds, AZ	0.000	0.230		1.840		1.618		-		1.618	Continuing	Continuing	-
Subtotal			19.655	8.930		7.780		5.318		-		5.318	-	-	-
			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			180.491	110.802		124.764		124.099		-		124.099	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs			Project (Number/Name) D17 / Apache Block III

	FY 2013				FY 2014				FY 2015				FY 2016				FY 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
NRE Contracts - Boeing																												
NRE Contracts - Longbow Limited Liability																												
MRL PDR																												
MRL Prototypes & CDR																												
Follow-On Test & Eval I																												
MRL Design																												
Force Develop Test & Evaluation (FDTE III)																												
Follow-On Test & Eval II																												
MRL Integration and Test																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) D17 / Apache Block III	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NRE Contracts - Boeing	1	2011	4	2017
NRE Contracts - Longbow Limited Liability	1	2011	4	2017
MRL PDR	3	2014	3	2014
MRL Prototypes & CDR	4	2014	1	2015
Follow-On Test & Eval I	4	2014	4	2014
MRL Design	3	2013	4	2014
Force Develop Test & Evaluation (FDTE III)	4	2016	4	2016
Follow-On Test & Eval II	4	2016	4	2016
MRL Integration and Test	2	2015	4	2015

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PE 0203744A: Aircraft Modifications/Product Improvement Program...
Army

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014			
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) D18 / Fixed Wing Aircraft				
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	
D18: Fixed Wing Aircraft	-	0.882	1.832	0.819	-	0.819	1.175	0.997	1.087	2.273	-	9.065	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			
# The FY 2015 OCO Request will be submitted at a later date.													
Note Not applicable for this item.													
A. Mission Description and Budget Item Justification The budget line provides for Non-Recurring Engineering (NRE), development of supplemental type certificates (STC) and associated testing, and integration of all Army fixed wing aircraft to provide Communications, navigation and Surveillance (CNS), Aircraft Survivability Equipment (ASE), and Department of Defense (DoD) mandated safety equipment to meet current and evolving international and Army standards. FY 2015 Research, Development, Test and Evaluation (RDT&E) dollars in the amount of \$0.819 million provides funding for developmental NRE for aircraft modifications to CNS, ASE, and integration of Intelligence, Surveillance and Reconnaissance (ISR) Mission Equipment Packages (MEP). The increased performance will permit the Army fixed wing aircraft to operate in compliance with other existing and emerging regulations. As requirements for new avionics equipment continue, aircraft delays and airspace exclusions are likely for aircraft not properly equipped. Upgrade of communication and aircraft modifications will assure worldwide deployability for those required to deploy. This budget line will also provide funding for studies, evaluations and Analysis of Alternatives to support emerging Army fixed wing requirements for product improvements to support the Army fleet.													
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015		
Title: Non-recurring Engineering Articles: Description: Non-recurring engineering efforts provide improved performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment. FY 2013 Accomplishments: Non-recurring engineering efforts provide improved performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment. FY 2014 Plans: Non-recurring engineering efforts provide improved performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment. FY 2015 Plans:									0.829	1.723	0.770		
									-	-	-		

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army								Date: March 2014			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) D18 / Fixed Wing Aircraft			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2013	FY 2014	FY 2015	
Non-recurring engineering efforts in order to improve performance to Army fixed wing aircraft for communication, navigation, and surveillance equipment.											
Title: Program Management								Articles:	0.053	0.109	0.049
								-	-	-	
Description: Program Management of PM FW											
FY 2013 Accomplishments: Program Management of PM FW											
FY 2014 Plans: Program Management of PM FW											
FY 2015 Plans: Program Management of PM FW											
Accomplishments/Planned Programs Subtotals								0.882	1.832	0.819	
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• AA0703: GATM-Fixed Wing Aircraft	7.356	12.072	12.456	-	12.456	14.949	18.945	15.553	15.854	-	97.185
• AA0270: Utility/Cargo Airplane Mods	23.048	11.500	15.029	-	15.029	16.486	17.721	16.598	16.709	-	117.091
Remarks											
D. Acquisition Strategy											
The US Army Fixed Wing acquisition and modernization strategy leverages commercial derivative aircraft through the use of supplemental type certificates (STC) and associated testing and includes cockpit modernization for civil and tactical upgrades of military unique equipment and integration of Intelligence, Surveillance and Reconnaissance (ISR) Mission Equipment Packages (MEP). Cockpit modernization upgrades include items such as dual Flight Management Systems, Terrain Area Warning Systems, transponder, Mode S/5 transponders, Satellite Communications, Traffic Alert and Collision Avoidance II, Flight Data Recorders, Cockpit Voice Recorders, communication radios, military Global Positioning System (GPS), Wide Area Augmentation System/ Localizer Performance with Vertical Guidance, Automatic Dependence Surveillance Broadcast (ADS-B) Out, M-code GPS, Blue Force Tracker, and Smart books. ISR MEP upgrades include integration of multi-intelligence systems.											

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) D18 / Fixed Wing Aircraft
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs					Project (Number/Name) D18 / Fixed Wing Aircraft				
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Program Management Support	Various	PM Fixed Wing : Redstone Arsenal, AL	0.000	0.053		0.109	Dec 2013	0.049		-		0.049	Continuing	Continuing	Continuing
Subtotal			0.000	0.053		0.109		0.049		-		0.049	-	-	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
Fixed Wing Non-recurring Engineering	Various	Various : Various	0.000	0.829		1.723		0.770		-		0.770	Continuing	Continuing	Continuing
Subtotal			0.000	0.829		1.723		0.770		-		0.770	-	-	-
			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			0.000	0.882		1.832		0.819		-		0.819	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																Date: March 2014			
Appropriation/Budget Activity 2040 / 7								R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs								Project (Number/Name) D18 / Fixed Wing Aircraft			

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) D18 / Fixed Wing Aircraft	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FW Non-recurring Engineering	1	2013	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014																										
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs				Project (Number/Name) EB1 / Improved Turbine Engine Program																											
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																								
EB1: Improved Turbine Engine Program	-	-	-	39.328	-	39.328	49.247	101.853	136.958	129.618	-	457.004																								
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-																										
<p># The FY 2015 OCO Request will be submitted at a later date.</p> <p>A. Mission Description and Budget Item Justification</p> <p>The Improved Turbine Engine Program (ITEP) develops, tests, and qualifies the next generation turboshaft engine. The Improved Turbine Engine (ITE) replaces the existing T700 engine design originated in the 1970's and meets the operational requirement of 6K/95. The ITE will fit inside the existing engine bays of the Black Hawk and Apache Helicopters and provides a significant power enhancement of up to fifty percent (total of 3,000 shaft horsepower) with increased fuel efficiency. Additional benefits include improved design life, enhanced reliability, lower maintenance cost and restored capability lost due to aircraft weight growth, without increasing the logistics footprint. The program consists of system engineering and program management,detailed design engineering, design assurance, hardware manufacturing and testing, component and module level development and testing, system level testing and qualification, as well as integration into the airframe.</p> <p>For FY 2014 and prior, all funding for ITEP was contained in PE 0203744A – Aircraft Modifications/Product Improvement Programs, Project 504. FY 2015 funding provides for ITEP Technology Maturation and Risk Reduction (TMRR) contract award, and initial component design,and initial platform/engine integration trade studies. FY 2016 – FY 2017 funds the continuing design effort. FY 2018 funds the completion of the TMRR phase and results in the Preliminary Design Review (PDR). FY 2019 funds the initial Engineering Manufacturing and Development (EMD) contract award.</p> <p>B. Accomplishments/Planned Programs (\$ in Millions)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td align="center">FY 2013</td> <td align="center">FY 2014</td> <td align="center">FY 2015</td> </tr> <tr> <td>Title: ITEP</td> <td align="center">-</td> <td align="center">-</td> <td align="right">39.328</td> </tr> <tr> <td colspan="4">Description: Improved Turbine Engine Program (ITEP) - a multi-platform turbine engine improvement required across existing Army aircraft to fill the capability gaps for Army Aviation Operations</td> </tr> <tr> <td colspan="4">FY 2015 Plans: Systems Engineering/Program Management requirements. Initial Technology Maturation and Risk Reduction (TMRR) contract award for initial engine design. Initial aircraft platform/engine integration trade studies.</td> </tr> <tr> <td align="right" colspan="4">Accomplishments/Planned Programs Subtotals</td> </tr> <tr> <td></td> <td align="center">-</td> <td align="center">-</td> <td align="right">39.328</td> </tr> </table> <p>C. Other Program Funding Summary (\$ in Millions) N/A</p> <p>Remarks</p>														FY 2013	FY 2014	FY 2015	Title: ITEP	-	-	39.328	Description: Improved Turbine Engine Program (ITEP) - a multi-platform turbine engine improvement required across existing Army aircraft to fill the capability gaps for Army Aviation Operations				FY 2015 Plans: Systems Engineering/Program Management requirements. Initial Technology Maturation and Risk Reduction (TMRR) contract award for initial engine design. Initial aircraft platform/engine integration trade studies.				Accomplishments/Planned Programs Subtotals					-	-	39.328
	FY 2013	FY 2014	FY 2015																																	
Title: ITEP	-	-	39.328																																	
Description: Improved Turbine Engine Program (ITEP) - a multi-platform turbine engine improvement required across existing Army aircraft to fill the capability gaps for Army Aviation Operations																																				
FY 2015 Plans: Systems Engineering/Program Management requirements. Initial Technology Maturation and Risk Reduction (TMRR) contract award for initial engine design. Initial aircraft platform/engine integration trade studies.																																				
Accomplishments/Planned Programs Subtotals																																				
	-	-	39.328																																	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) EB1 / Improved Turbine Engine Program
<u>D. Acquisition Strategy</u> Full and Open Competition is planned for the ITEP Technology Maturation and Risk Reduction (TMRR) contract. Award cost plus incentive fee contract to a single vendor following Milestone A.		
<u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs						Project (Number/Name) EB1 / Improved Turbine Engine Program			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
ITEP SEPM - Organic	TBD	PMO Huntsville, AL : Various	0.000	-		-		4.500	Oct 2014	-		4.500	-	4.500	-
ITEP SEPM - Contractor	TBD	PMO Huntsville, AL : Various	0.000	-		-		3.276	Oct 2014	-		3.276	-	3.276	-
ITEP SEPM - OGA	TBD	PMO Huntsville, AL : Various	0.000	-		-		1.549	Oct 2014	-		1.549	-	1.549	-
Subtotal			0.000	-		-		9.325		-		9.325	-	9.325	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		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
ITEP Technology Maturation and Risk Reduction (TMRR) Development Engineering	C/CPIF	Various : Various	0.000	-		-		26.003	May 2015	-		26.003	-	26.003	-
ITEP Air Vehicle Integration	TBD	Various : Various	0.000	-		-		4.000	May 2015	-		4.000	-	4.000	-
Subtotal			0.000	-		-		30.003		-		30.003	-	30.003	-
			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			0.000	-		-		39.328		-		39.328	-	39.328	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army										Date: March 2014	
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs					Project (Number/Name) EB1 / Improved Turbine Engine Program	

	FY 2013				FY 2014				FY 2015				FY 2016				FY 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
Improved Turbine Engine Program Systems Engineering/Program Management																												
Improved Turbine Engine Program Development Engineering																												
Improved Turbine Engine Program Detailed Design (EMD)																												
Improved Turbine Engine Program Air Vehicle Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203744A / Aircraft Modifications/ Product Improvement Programs	Project (Number/Name) EB1 / Improved Turbine Engine Program

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Improved Turbine Engine Program Systems Engineering/Program Management	1	2015	4	2020
Improved Turbine Engine Program Development Engineering	2	2015	1	2019
Improved Turbine Engine Program Detailed Design (EMD)	1	2019	4	2020
Improved Turbine Engine Program Air Vehicle Integration	2	2015	4	2020