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Exhibit P-40, Budget Line Item Justification: PB 2017 Army **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 GA0750 / Abrams Upgrade Program

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A **Item MDAP/MAIS Code(s):** N/A

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,605	6	-	-	-	-	-	-	-	-	-	1,611
Gross/Weapon System Cost (<i>\$ in Millions</i>)	8,929.107	120.000	-	-	-	-	-	-	-	-	-	9,049.107
Less PY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,864.613	120.000	-	-	-	-	-	-	-	-	-	6,984.613
Plus CY Advance Procurement (<i>\$ in Millions</i>)	2,064.494	-	-	-	-	-	-	-	-	-	-	2,064.494
Total Obligation Authority (<i>\$ in Millions</i>)	8,929.107	120.000	-	-	-	-	-	-	-	-	-	9,049.107

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	5,563.307	20,000.000	-	-	-	-	-	-	-	-	-	5,617.074

Description:

The purpose of this program is to upgrade M1/M1A1 tanks to the M1A2 System Enhancement Package (SEP) configuration in order to enhance tank survivability, the automotive power pack, computer systems, and night vision capabilities. The M1A2 SEP incorporates improved microprocessors; color flat panel displays and memory capacity; Soldier-Machine Interface (SMI); and a new operating system designed to run the Common Operating Environment (COE) software. Other improvements include frontal and side armor for enhanced crew survivability. Both the Gunner's Primary Sight (GPS) and the Commander's Independent Thermal Viewer (CITV) on the M1A2 SEP tank include the improved thermal ranging capabilities of the Block 1 2nd Generation Forward Looking Infra-Red (FLIR) technology. The M1A2 SEP is also equipped with the Total Integrated Engine Revitalization (TIGER) engine and upgraded transmission for improved reliability and durability. The Abrams Upgrade Program will continue to be utilized to modify and upgrade the Abrams M1A2SEP v2 tank to avoid a break in production and maintain an engineering production and depot maintenance capability for heavy combat vehicle manufacturing, transmission manufacturing capability, and FLIR manufacturing to support the industrial base. Efforts to develop leaner Abrams production processes and optimize facilities to facilitate lower manufacturing rates in the future will also be initiated. In FY15 PM Abrams implemented a limited pilot program to produce the next version M1A2 Sep v3 tank in lieu of producing additional M1A2 Sep v2 tanks.

Secondary Distribution	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021
Army									
Quantity	6	-	-	-	-	-	-	-	-
Total Obligation Authority	120.000	-	-	-	-	-	-	-	-
Total:									
Secondary Distribution									
Quantity	6	-	-	-	-	-	-	-	-
Total Obligation Authority	120.000	-	-	-	-	-	-	-	-

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Appropriation / Budget Activity / Budget Sub Activity:
 2033A: Procurement of W&TCV, Army / BA 01: Tracked Combat Vehicles / BSA 20: Modification of Tracked Combat Vehicles **P-1 Line Item Number / Title:**
 GA0750 / Abrams Upgrade Program

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0203735A

Line Item MDAP/MAIS Code: N/A **Item MDAP/MAIS Code(s):** N/A

Exhibits Schedule				Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	GA0750 / Abrams Upgrade Program	P-5a, P-21	A	1,605 / 8,929.107	6 / 120.000	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			1,605 / 8,929.107	6 / 120.000	- / -	- / -	- / -	- / -

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 There is no FY 2017 funding.

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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Exhibit P-5, Cost Analysis: PB 2017 Army						Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20			P-1 Line Item Number / Title: GA0750 / Abrams Upgrade Program			Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program		
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:		
Resource Summary			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (<i>Units in Each</i>)			1,605	6	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)			8,929.107	120.000	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)			2,064.494	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)			6,864.613	120.000	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)			2,064.494	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)			8,929.107	120.000	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (<i>\$ in Millions</i>)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)			5,563.307	20,000.000	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Basic Vehicle ^(†)	3,826.566	1,605	6,141.639	12,867.167	6	77.203	-	-	-	-	-	-	-	-	-	-	-	-
Government Furnished Equipment (GFE)	-	-	1,166.111	-	-	6.900	-	-	-	-	-	-	-	-	-	-	-	-
Pre-Modification Vehicle Teardown/ Refurb	-	-	-	-	-	1.900	-	-	-	-	-	-	-	-	-	-	-	-
TPF/New Equipment Training	-	-	196.427	-	-	0.690	-	-	-	-	-	-	-	-	-	-	-	-
Government Support	-	-	1,123.595	-	-	0.800	-	-	-	-	-	-	-	-	-	-	-	-
Transmissions	-	-	125.383	-	-	15.890	-	-	-	-	-	-	-	-	-	-	-	-
Forward Looking Infrared (FLIR)	-	-	85.952	-	-	11.856	-	-	-	-	-	-	-	-	-	-	-	-
Industrial Base Mitigation Support	-	-	90.000	-	-	4.761	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>8,929.106</i>	-	-	<i>120.000</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>8,929.106</i>	-	-	<i>120.000</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	5,563.307	1,605	8,929.107	20,000.000	6	120.000	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Army	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: GA0750 / Abrams Upgrade Program	Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program
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ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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		FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Secondary Distribution						
Army	Quantity	6	-	-	-	-
	Total Obligation Authority	120.000	-	-	-	-
Total:	Quantity	6	-	-	-	-
Secondary Distribution	Total Obligation Authority	120.000	-	-	-	-

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Army **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: GA0750 / Abrams Upgrade Program	Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Basic Vehicle ^(†)		2013	GDLS / Sterling Heights, MI	SS / FFP	TACOM-Warren	Sep 2014	Apr 2015	12	5,134.000			
Basic Vehicle ^(†)		2014	GDLS / Sterling Heights, MI	SS / FFP	TACOM-Warren	Aug 2015	Aug 2016	6	5,410.000			
Basic Vehicle ^(†)		2015	GDLS / Sterling Heights, MI	SS / FFP	TACOM-Warren	May 2016	Feb 2017	6	12,867.167			

^(†) indicates the presence of a P-21

Remarks:

There is no 2017 funding.

GDLS-Prime Contractor, Sterling Heights, MI
Manufactured at JSMC, Lima, OH

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Exhibit P-21, Production Schedule: PB 2017 Army **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20 **P-1 Line Item Number / Title:** GA0750 / Abrams Upgrade Program **Item Number / Title [DODIC]:** GA0750 / Abrams Upgrade Program

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
Basic Vehicle																															
Prior Years Deliveries: 1587																															
1		2013	ARMY	12	-	12																									
1		2014	ARMY	6	-	6																									
1		2014	FMS (†)	42	-	42																									
1		2014	Total	48	-	48																									
1		2015	ARMY	6	-	6																									
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Army **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20	P-1 Line Item Number / Title: GA0750 / Abrams Upgrade Program	Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016													Fiscal Year 2017													BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Basic Vehicle																																			
Prior Years Deliveries: 1587																																			
1	2013	ARMY		12	9	3	1	1	1																										-
1	2014	ARMY		6	-	6	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1													-
1	2014	FMS (†)		42	-	42	-	-	-	6	6	6	6	6	6	-	-	-	-	-	-														-
1	2014	Total		48	-	48	-	-	-	6	6	6	6	6	6	1	1	1	1	1	1														-
1	2015	ARMY		6	-	6								A	-	-	-	-	-	-	-														-
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2017 Army		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 2033A / 01 / 20		P-1 Line Item Number / Title: GA0750 / Abrams Upgrade Program
		Item Number / Title [DODIC]: GA0750 / Abrams Upgrade Program

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	GDLS - Sterling Heights, MI	1	10	28	-	3	15	18	-	8	13	21

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).