Exhibit P-40, Budget Item J	Justification	Sheet							Date:		February 2010	0
Appropriation / Budget Activity / Seria Procurement of W&TCV, Amy / 2 /	nl No: Weapons and other co	ombat vehicles			P-	-1 Item Nomencla HOWITZER	ature R LT WT 155MM (T)	(G01700)				
Program Elements for Code B Items: 0604854-509		Code:		Other R	elated Progran	n Elements:						
	Prior Years	FY 2009	FY 2	2010	FY 2011	FY 2012	FY 2013	FY 20	14 FY	2015	To Complet	te Total Prog
Proc Qty	316	38		53	14	4						421
Gross Cost	733.1	120.9		157.4	62.0	0						1073.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	733.1	120.9		157.4	62.0	0						1073.3
Initial Spares												
Total Proc Cost	733.1	120.9		157.4	62.0	0						1073.3
Flyaway U/C												
Weapon System Proc U/C												
P-40 Breakdown												
Area		FY 200)9	FY	2010	FY 2011	FY 2012	I	FY 2013	F	Y 2014	FY 2015
Active	Qty		25		36	14		0	0)	0	0
	Gross Cost	8	80841.0		111525.0	62000.0	(0.0	0.0)	0.0	0.0
National Guard	Qty		13		17	0		0	0)	0	0
	Gross Cost	4	10030.0		45890.0	0.0	(0.0	0.0)	0.0	0.0
Reserve	Qty		0		0	0		0	0)	0	0
	Gross Cost		0.0		0.0	0.0	(0.0	0.0)	0.0	0.0
Total	Qty		38		53	14		0	0)	0	0
	Gross Cost		120871		157415	62000		0	0	,	0	0

Description:

The Lightweight 155mm Howitzer (LW155), also known as the M777A2, provides direct, reinforcing, and general support fires to maneuver forces. It replaces all howitzers in all missions in the USMC and replaces the M198 howitzer as the general support artillery for light forces in the Army. The LW155 fires unassisted projectiles to a range of 15 miles and assisted projectiles to 19 miles, but the addition of the digital fire control system enables the weapon to program and fire the improved Excalibur precision-guided munition to ranges in excess of 25 miles with better than 10-meter Circular Error Probable (CEP) accuracy. The LW155 is the first ground combat system whose major structures are made of high strength titanium alloy and the system makes extensive use of hydraulics to operate the breech, load tray, recoil and wheel arms. The combination of titanium structures and the use of hydraulic systems resulted in a significant weight savings over the M198 system (>7000 lbs.). Compared to the M198, the LW155 emplaces three-times faster and displaces four-times faster. It traverses 32 percent more terrain worldwide and is 70 percent more survivable than the M198.

Justification:

FY11 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$62,000 million procures 14 M777 Light Weight 155MM Howitzers. It also supports Interim Contractor Support for all guns in theater. Finally it provides for Capability Package to address usage problems encountered in Afghanistan - Hydraulic Power Assist (HYPAK), Muzzle Velocity Radar, and

Exhibit P-40, Budget Item Justification	on Sheet			Date: February 2010
Appropriation / Budget Activity / Serial No: Procurement of W&TCV, Army / 2 / Weapons and other	er combat vehicles		P-1 Item Nomenclature HOWITZER LT WT 155MM (T) (G01700)	
Program Elements for Code B Items: 0604854-509	Code:	Other Related Pro	ogram Elements:	
Power Distribution Systems. The HYPAK assists the types of missions being conducted in Forward Operate to be problematic. The Power Distribution upgrade prime mover (MTVR) and due to 24 hour operations	ing Bases. The Muz allows for use of AC	zle Velocity Radar is a power to recharge on-b	n off-the-shelf replacement for the radar used sin	nce the earlier M198 howitzer and which has proven
The LW155 replaces the M198 Towed Howitzer for a scheduled to be the final year of the LW155 production. These guns are needed.	on line. The LW155	is the cannon fire supp		

Exhibit P-5, Weapon WTCV Cost Analysis	Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army and other combat vehicles	/ 2 / W			omenclature: WT 155MM (T) (G01700)		Weapon System	m Type:	Date:	February 2010
WTCV		ID		FY 09			FY 10			FY 11	
Cost Elemen	ts	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
BAE Lightweight 155mm Howitzer			86375	38	2273	124550	53	2350	3290	0 14	2350
Watervliet Arsenal Cannon			9500	38	250	13250	53	250	350	0 14	250
Primer Feed Mechanism			798	38	21	1060	53	20	28	0 14	20
Optical Fire Control			1824	38	48	2332	53	44	61	6 14	44
Basic Initial Issue			5908			1316			34	0	
System Engineering / Program Management			8500			7985			252	4	
Test			3250			1767			490	0	
Fielding			4716			5155			1350	0	
Interim Contractor Support (ICS)									1200	0	
Capability Package 1									800	0	
		1	ı	1	1		1		ı	1	1

120871

157415

Total:

62000

Exhibit P-5a, Budget Procurement	nt History and Planning							oate: ebruary	2010	
Appropriation/Budget Activity/Serial No: Procurement of W&TCV, Army/ 2/ Weapons a	Weapon System Type:		Nomenclature: LT WT 155MM (T) (G01700)						
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn A vail	RFF Issue Date
BAE Lightweight 155mm Howitzer										
FY 2009	BAE SYSTEMS Barrow-in-Furness, UK	SS/FFP	Picatinny Arsenal, NJ	Jul 09	Oct 10	38	2273			
FY 2010	BAE SYSTEMS Barrow-in-Furness, UK	SS/FFP	Picatinny Arsenal, NJ	Mar 10	Oct 11	53	2350			
FY 2011	BAE SYSTEMS Barrow-in-Furness, UK	SS/FFP	Picatinny Arsenal, NJ	Dec 10	Aug 12	14	2350			
Watervliet Arsenal Cannon										
FY 2009	Watervliet Arsenal Watervliet, NY 12189	MIPR	N/A	Oct 08	May 09	38	250	1		
FY 2010	Watervliet Arsenal Watervliet, NY 12189	MIPR	N/A	Jan 10	May 10	53	250			
FY 2011	Watervliet Arsenal Watervliet, NY 12189	MIPR	N/A	Oct 10	May 11	14	250			
Primer Feed Mechanism									1	
FY 2009	Triumph Actuator Systems Bloomfield, CT 06002	SS/FFP	Picatinny Arsenal, NJ	Oct 08	May 09	38	21			
FY 2010	Triumph Actuator Systems Bloomfield, CT 06002	SS/FFP	Picatinny Arsenal, NJ	Jan 10	May 10	53	20			
FY 2011	Triumph Actuator Systems Bloomfield, CT 06002	SS/FFP	Picatinny Arsenal, NJ	Oct 10	May 11	14	20			
Optical Fire Control									1	
FY 2009	Seiler Instrument St. Louis, MO 63119	SS/FFP	Picatinny Arsenal, NJ	Oct 08	May 09	38	48			
FY 2010	Seiler Instrument St. Louis, MO 63119	SS/FFP	Picatinny Arsenal, NJ	Jan 10	May 10	53	44			
FY 2011	Seiler Instrument St. Louis, MO 63119	SS/FFP	Picatinny Arsenal, NJ	Oct 10	May 11	14	44			

REMARKS:

FY 09 / 10 BUDGET PRODUCTION SCHEDULE COST ELEMENTS Fiscal Year 09														P-1 ITEM NOMENCLATURE HOWITZER LT WT 155MM (T) (G01700) Page: February 2010 Fiscal Year 10																	
	C	OST	ELEN	IENTS	,						Fiscal Y	Year 0	9	•									Fiscal Y	ear 10)						
M		S E	PROC QTY	ACCEP PRIOR	BAL									Calenda	r Year 0)9								Calen	ıdar Yea	ar 10				-	
F R	FY	R V	x1000	TO 1 OCT	DUE AS OF 1 OCT	O C	N O	D E	J A	F E	M A	A P	M A		J U	A U	S E P	O C	N O	D E	J A	F E	M A	A P	M A	J U	J U	A U	S E	Later	
	ET' 1.				1001	T	V	E C	A N	E B	A R	R	A Y	N	L	G	P	T	O V	E C	A N	В	R	R	A Y	N	L	U G	E P	Later	_
_	E Light FY 08	A	55mm H 203	owitzer 14	189	7	7	7	7	7	7	7	· [7 7	7	7	7	7	7	6	10	10	10	10	10	10	10	10	5	0	-
-	FY 08	MC	100	0		7		7	7	7	7	7	+	7 7	7	7	7		5	4										0	
\vdash	FY 09	A	25	25																										0	
1	FY 09	NG	13	13																										0	
1	FY 09	TOT	38	0	38										A															38	
1	FY 09	MC	62	0	62										A														5	57	
1	FY 09	FMS	25	0	25										A															25	
	FY 10	A	36																											0	
\vdash	FY 10	NG	17										ļ																	0	
\vdash	FY 10	TOT	53										-										A							53	
\vdash	FY 10	MC	18																				A							18	
Н	FY 10	FMS	35										1	-									A							35	
\vdash	FY 11 FY 11	A MC	14 22		1								-																	14 22	
1	1 1 11	IVIC	22	0	22								-																	22	
													+																		
Tot	al	•			556	14	14	14	14	14	14	14	14	1 14	14	14	14	14	12	10	10	10	10	10	10	10	10	10	10	262	
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	A Y	. U	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		
														I.					•						•						
M							1	PRODU	CTION	RATES						A	DMIN I	LEAD T	IME		MFR		TOTA	AL.	REMA	RKS					٦
F											Reac	hed M	IFR			Pri	or 1 Oct	Afte	r 1 Oct	Af	ter 1 Oct		After 1	Oct							
R			Nan	ne - Locati	on		N	MIN	1-8-5	MAX	D-	+	1]	nițial			0		1		11		12								
1	BAE S	YSTEN	MS, Barrow-in-Fumess, UK 48 192 192]	Reorder			0		3		20		23									
]	nitial																	
													-+	Reorder											_						
													_ ⊢	nitial											4						
								\rightarrow		-	+		-	Reorder		+				-					-						
_							_	\rightarrow		-		\dashv		nitial Reorder		+				+					-						
								+				+	-	nitial		+				+					1						
								+				\dashv	F	Reorder		+				+					1						
	<u> </u>																			1					_						- 1

G01700 HOWITZER LT WT 155MM (T) Item No. 33 Page 5 of 7 Page 214 of 305 Exhibit P-21 Production Schedule

		F	Y 11 /	12 BU	DGET	PRC	DUC	TIO	N SCI	HEDU	LE			P-1 ITEN HOWITZ				(G0170	00)				Dat	e:	Februa	ry 2010				
	C	OST 1	ELEN	IENTS							Fiscal	Year 1	1										Fiscal Y	ear 12	!					
M		S E	PROC QTY	ACCEP PRIOR	BAL DUE									Calenda	r Year 1	.1	'							Calen	dar Yea	ar 12				
F R	FY	R V	x1000	TO 1 OCT	AS OF 1 OCT	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	Later
ВА	E Lightv	veight 1	55mm H	owitzer		•	•	•	•					•					•	•										
1	FY 08	A	203	203																										0
1	FY 08	MC	100	100																										0
1	FY 09	A	25		_																									0
\vdash	FY 09	NG	13		_																									0
\vdash	FY 09	TOT	38			5			5		5	5	+	3																0
ш	FY 09	MC	62			5	5	5	5	5	5	5	1	7 10	-															0
\vdash	FY 09	FMS	25										1		5	10	10													0
ш	FY 10	A	36										-																	0
\vdash	FY 10 FY 10	NG TOT	17 53										1					-	-	5	7	10	10	10	1					0
ш	FY 10	MC	18											+				5	5	5	3	10	10	10	1					0
\vdash	FY 10	FMS	35		35								-						,	,	3				0	10	10	6		0
\vdash	FY 11	A	14					A					1												9	10	10	2	5	7
\vdash	FY 11	MC	22					A	1																			2	5	-
1	F 1 11	IVIC	22	0	22			Λ	1																			2		13
													1																	
Tot	al				262	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	22
			•	•	•	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	
						1	I *		111	Б	K	IX.	1	11	ь.	0	1	1	· ·		14	В	K	K	1	11	L	0	1	
M]	PRODU	JCTION :	RATES						A	DMIN I	EAD T	IME		MFR		TOTA	AL	REMA	RKS				
F											Reac	hed N	IFR			Pric	or 1 Oct	Afte	r 1 Oct	Af	ter 1 Oct		After 1	Oct						
R			Nan	Name - Location MIN 1-8-5 MAX D+ 1								1 Ir	itial			0		1		11		12								
1	BAE S	YSTEM	IS, Barro	w-in-Fum	iess, UK	. 48 192 192 Re								eorder			0		3		20		23							
							Initi																							
									R	eorder																				
													Ir	itial																
														eorder																
	-												-	itial				1							-					
														eorder								_			-					
							_						-	itial								_			-					
	1									1			R	eorder				1		1					1					

G01700 HOWITZER LT WT 155MM (T) Item No. 33 Page 6 of 7 Page 215 of 305 Exhibit P-21 Production Schedule

		F	Y 13 /	14 BU	DGET	PRC	DUC	TIO	N SCI	HEDU	LE			P-1 ITEN HOWITZ				(G0170	00)				Da	te:	Februa	ry 2010				
	C	OST	ELEM	IENTS	3						Fiscal	Year 13	3										Fiscal Y	ear 14	1					
М		S E	PROC QTY	ACCEP PRIOR	BAL DUE									Calenda	r Year 1	.3								Caler	ndar Yea	ar 14				
F R	FY	R V	x1000	TO 1 OCT	AS OF 1 OCT	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	Later
		veight 1	55mm H	owitzer	•	•	•					•			•					•	•	•	•		•	•				
	FY 08	A	203	203																										0
1	FY 08 FY 09 FY 09	MC	100	100										<u> </u>																0
1	FY 09	Α	25	25				<u> </u>																						0
1		NG	13		+									 																0
	FY 09	TOT	38	38										 																0
\perp	FY 09	MC	62											 																0
\vdash	FY 09	FMS	25 36	25 36				-						+																0
\vdash	FY 10 FY 10	A NG	17					-						+-																0
\vdash	FY 10	TOT	53	53										+																0
	FY 10	MC	18					_						+																0
\vdash	FY 10	FMS	35	35										+																0
\vdash	FY 11	A	14			5	2							+																0
\vdash	FY 11	MC	22		15	5	8	2						+																0
H														+																
														1																
Tota	ıl				22	10	10	2																						
						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	
												ı									ı	ı				ı				
M							1	PRODU	CTION	RATES						Α	DMIN I	LEAD T	IME		MFR		TOT	AL	REMA	RKS				
F				Reached MI								FR			Pric	or 1 Oct	Afte	r 1 Oct	Af	ter 1 Oct	t	After 1	Oct						ļ	
R												1 In	itial			0		1		11		12								
1	BAE S	YSTEN	AS, Barro	w-in-Fum	ness, UK			48	192	192			-+	eorder			0		3		20		23							
								\longrightarrow					-	itial											4					
													-+	eorder											-					
								\longrightarrow					-	itial				+							-					
								-+					-	eorder				1							-					
												_	<u> </u>	itial corder				-							-					
								\dashv				+		Initial																
								_					-	eorder																

G01700 HOWITZER LT WT 155MM (T) Item No. 33 Page 7 of 7 Page 216 of 305 Exhibit P-21 Production Schedule