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**Department of Defense
Fiscal Year (FY) 2018 Budget Estimates**

May 2017



Army

*Justification Book of
Aircraft Procurement, Army*

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AIRCRAFT PROCUREMENT, ARMY

Appropriation Language

For construction, procurement, and modification of aircraft and equipment, including armor and armament, specialized ground handling equipment, and training devices, spare parts, and accessories therefore; specialized equipment; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents and transportation of things, \$4,149,894 Base and \$424,686,000 OCO to remain available for obligations until September 30, 2020.

COST STATEMENT

The following Justification Books were prepared at a cost of \$250,916: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 - Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, and Budget Activity 7."

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Department of the Army
 FY 2018 President's Budget Request
 Exhibit P-1 FY 2018 President's Budget Request
 Total Obligational Authority
 (Dollars in Thousands)

03 May 2017

<u>Appropriation</u>	<u>FY 2016 Base + OCO</u>	<u>FY 2017 PB Request with CR Adj Base</u>	<u>FY 2017 Total PB Requests* with CR Adj Base</u>
Aircraft Procurement, Army	6,159,250	5,855,216	7,480,959
Total Department of the Army	6,159,250	5,855,216	7,480,959

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Department of the Army
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 (Dollars in Thousands)

03 May 2017

Appropriation	FY 2017 PB Request with CR Adj OCO	FY 2017 Total PB Requests* with CR Adj OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj OCO
Aircraft Procurement, Army	161,987	184,987		184,987
Total Department of the Army	161,987	184,987		184,987

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Department of the Army
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03 May 2017

Appropriation	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO
Aircraft Procurement, Army	6,017,203	7,665,946		7,665,946
Total Department of the Army	6,017,203	7,665,946		7,665,946

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Department of the Army
FY 2018 President's Budget Request
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Total Obligational Authority
(Dollars in Thousands)

03 May 2017

<u>Appropriation</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>
Aircraft Procurement, Army	4,149,894	424,686	4,574,580
Total Department of the Army	4,149,894	424,686	4,574,580

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Department of the Army
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03 May 2017

Appropriation: Aircraft Procurement, Army

Budget Activity	FY 2016 Base + OCO	FY 2017 PB Request with CR Adj Base	FY 2017 Total PB Requests* with CR Adj Base
01. Aircraft	4,910,846	2,641,551	3,855,511
02. Modification of Aircraft	871,072	714,453	1,122,624
04. Support Equipment and Facilities	377,332	258,783	262,395
20. Undistributed		2,240,429	2,240,429
Total Aircraft Procurement, Army	6,159,250	5,855,216	7,480,959

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03 May 2017

Appropriation: Aircraft Procurement, Army

Budget Activity	FY 2017 PB Request with CR Adj OCO	FY 2017 Total PB Requests* with CR Adj OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj OCO
01. Aircraft	78,040	101,040		101,040
02. Modification of Aircraft	70,295	70,295		70,295
04. Support Equipment and Facilities	164,836	164,836		164,836
20. Undistributed	-151,184	-151,184		-151,184
Total Aircraft Procurement, Army	161,987	184,987		184,987

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03 May 2017

Appropriation: Aircraft Procurement, Army

Budget Activity	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO
01. Aircraft	2,719,591	3,956,551		3,956,551
02. Modification of Aircraft	784,748	1,192,919		1,192,919
04. Support Equipment and Facilities	423,619	427,231		427,231
20. Undistributed	2,089,245	2,089,245		2,089,245
Total Aircraft Procurement, Army	6,017,203	7,665,946		7,665,946

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03 May 2017

Appropriation: Aircraft Procurement, Army

Budget Activity	FY 2018 Base	FY 2018 OCO	FY 2018 Total
01. Aircraft	2,878,105	126,340	3,004,445
02. Modification of Aircraft	973,224	115,164	1,088,388
04. Support Equipment and Facilities	298,565	183,182	481,747
20. Undistributed			
Total Aircraft Procurement, Army	4,149,894	424,686	4,574,580

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03 May 2017

Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Aircraft									
Fixed Wing									
1	Saturn Arch (MIP)	A		84,000					U
2	Utility F/W Aircraft			879	3	57,529	3	57,529	U
3	Aerial Common Sensor (ACS) (MIP)	A	5	96,500					U
4	MQ-1 UAV	A		314,273		55,388	13	185,388	U
Rotary									
5	Helicopter, Light Utility (LUH)	A	28	187,177					U
6	AH-64 Apache Block IIIA Reman Less: Advance Procurement (PY)	A	64	(1,300,799) (-157,338)	48	(1,013,014) (-209,930)	48	(1,013,014) (-209,930)	U U
				1,143,461		803,084		803,084	
7	AH-64 Apache Block IIIA Reman Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2018 for FY 2019) (M)			209,930 (209,930)		185,160 (185,160)		185,160 (185,160)	U
8	AH-64 Apache Block IIIB New Build	A					20	707,800	U
9	AH-64 Apache Block IIIB New Build Advance Procurement (CY) C (FY 2018 for FY 2019) (M)								U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Aircraft</u>											
Fixed Wing											
1	Saturn Arch (MIP)	A			2	23,000			2	23,000	U
2	Utility F/W Aircraft										U
3	Aerial Common Sensor (ACS) (MIP)	A									U
4	MQ-1 UAV	A									U
Rotary											
5	Helicopter, Light Utility (LUH)	A									U
6	AH-64 Apache Block IIIA Reman Less: Advance Procurement (PY)	A	4	(78,040)	4	(78,040)			4	(78,040)	U U
				78,040		78,040				78,040	
7	AH-64 Apache Block IIIA Reman Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2018 for FY 2019) (M)										U
8	AH-64 Apache Block IIIB New Build	A									U
9	AH-64 Apache Block IIIB New Build Advance Procurement (CY) C (FY 2018 for FY 2019) (M)										U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Total		FY 2017 Total		FY 2017 Less Enacted		FY 2017 Remaining Req		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Aircraft											
Fixed Wing											
1	Saturn Arch (MIP)	A			2	23,000			2	23,000	U
2	Utility F/W Aircraft		3	57,529	3	57,529			3	57,529	U
3	Aerial Common Sensor (ACS) (MIP)	A									U
4	MQ-1 UAV	A		55,388	13	185,388			13	185,388	U
Rotary											
5	Helicopter, Light Utility (LUH)	A									U
6	AH-64 Apache Block IIIA Reman Less: Advance Procurement (PY)	A	52	(1,091,054) (-209,930)	52	(1,091,054) (-209,930)			52	(1,091,054) (-209,930)	U U
				881,124		881,124				881,124	
7	AH-64 Apache Block IIIA Reman Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2018 for FY 2019) (M)			185,160 (185,160)		185,160 (185,160)				185,160 (185,160)	U
8	AH-64 Apache Block IIIB New Build	A			20	707,800			20	707,800	U
9	AH-64 Apache Block IIIB New Build Advance Procurement (CY) C (FY 2018 for FY 2019) (M)										U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
<u>Budget Activity 01: Aircraft</u>									
Fixed Wing									
1	Saturn Arch (MIP)	A							U
2	Utility F/W Aircraft		4	75,115			4	75,115	U
3	Aerial Common Sensor (ACS) (MIP)	A							U
4	MQ-1 UAV	A	2	30,206	9	87,300	11	117,506	U
Rotary									
5	Helicopter, Light Utility (LUH)	A	13	108,383			13	108,383	U
6	AH-64 Apache Block IIIA Reman Less: Advance Procurement (PY)	A	48	(911,136) (-185,160)	4	(39,040)	52	(950,176) (-185,160)	U U
				725,976		39,040		765,016	
7	AH-64 Apache Block IIIA Reman Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2018 for FY 2019) (M)			170,910				170,910	U
				(170,910)				(170,910)	
8	AH-64 Apache Block IIIB New Build	A	13	374,100			13	374,100	U
9	AH-64 Apache Block IIIB New Build Advance Procurement (CY) C (FY 2018 for FY 2019) (M)			71,900 (71,900)				71,900 (71,900)	U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
10	UH-60 Blackhawk M Model (MYP)		107	(1,695,077)	36	(882,225)	53	(1,258,385)	U
	Less: Advance Procurement (PY)			(-120,332)		(-127,079)		(-127,079)	U
				1,574,745		755,146		1,131,306	
11	UH-60 Blackhawk M Model (MYP)			127,079		174,107		174,107	U
	Advance Procurement (CY)			(127,079)					
	C (FY 2016 for FY 2017) (M)					(171,847)		(171,847)	
	C (FY 2017 for FY 2018) (M)					(1,823)		(1,823)	
	C (FY 2017 for FY 2019) (M)					(286)		(286)	
	C (FY 2017 for FY 2020) (M)					(151)		(151)	
	C (FY 2017 for FY 2021) (M)								
	C (FY 2018 for FY 2019) (M)								
	C (FY 2018 for FY 2020) (M)								
	C (FY 2018 for FY 2021) (M)								
12	UH-60 Black Hawk A and L Models	A	36	68,871	38	46,173	38	46,173	U
13	CH-47 Helicopter	A	39	(1,106,948)	22	(655,601)	22	(655,601)	U
	Less: Advance Procurement (PY)			(-102,361)		(-99,344)		(-99,344)	U
				1,004,587		556,257		556,257	
14	CH-47 Helicopter			99,344		8,707		8,707	U
	Advance Procurement (CY)			(99,344)					
	C (FY 2016 for FY 2017) (M)					(8,707)		(8,707)	
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)								
Total Aircraft				4,910,846		2,641,551		3,855,511	
Budget Activity 02: Modification of Aircraft									

Modification of Aircraft									
15	MQ-1 Payload (MIP)	A		148,353		43,735		91,735	U
16	Universal Ground Control Equipment (UAS)	A							U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c -
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
10	UH-60 Blackhawk M Model (MYP) Less: Advance Procurement (PY)										U U
11	UH-60 Blackhawk M Model (MYP) Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2017 for FY 2019) (M) C (FY 2017 for FY 2020) (M) C (FY 2017 for FY 2021) (M) C (FY 2018 for FY 2019) (M) C (FY 2018 for FY 2020) (M) C (FY 2018 for FY 2021) (M)										U
12	UH-60 Black Hawk A and L Models	A									U
13	CH-47 Helicopter Less: Advance Procurement (PY)	A									U U
14	CH-47 Helicopter Advance Procurement (CY) C (FY 2016 for FY 2017) (M) C (FY 2017 for FY 2018) (M) C (FY 2018 for FY 2019) (M)										U
Total Aircraft				78,040		101,040				101,040	

Budget Activity 02: Modification of Aircraft

Modification of Aircraft

15	MQ-1 Payload (MIP)	A									U
16	Universal Ground Control Equipment (UAS)	A									U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
10	UH-60 Blackhawk M Model (MYP) Less: Advance Procurement (PY)		36	(882,225) (-127,079)	53	(1,258,385) (-127,079)			53	(1,258,385) (-127,079)	U
				755,146		1,131,306				1,131,306	
11	UH-60 Blackhawk M Model (MYP) Advance Procurement (CY)			174,107		174,107				174,107	U
	C (FY 2016 for FY 2017) (M)										
	C (FY 2017 for FY 2018) (M)			(171,847)		(171,847)				(171,847)	
	C (FY 2017 for FY 2019) (M)			(1,823)		(1,823)				(1,823)	
	C (FY 2017 for FY 2020) (M)			(286)		(286)				(286)	
	C (FY 2017 for FY 2021) (M)			(151)		(151)				(151)	
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2018 for FY 2021) (M)										
12	UH-60 Black Hawk A and L Models	A	38	46,173	38	46,173			38	46,173	U
13	CH-47 Helicopter Less: Advance Procurement (PY)	A	22	(655,601) (-99,344)	22	(655,601) (-99,344)			22	(655,601) (-99,344)	U
				556,257		556,257				556,257	
14	CH-47 Helicopter Advance Procurement (CY)			8,707		8,707				8,707	U
	C (FY 2016 for FY 2017) (M)										
	C (FY 2017 for FY 2018) (M)			(8,707)		(8,707)				(8,707)	
	C (FY 2018 for FY 2019) (M)										
Total Aircraft				2,719,591		3,956,551				3,956,551	

Budget Activity 02: Modification of Aircraft

Modification of Aircraft

15	MQ-1 Payload (MIP)	A		43,735		91,735				91,735	U
16	Universal Ground Control Equipment (UAS)	A									U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
10	UH-60 Blackhawk M Model (MYP)		48	(1,110,155)			48	(1,110,155)	U
	Less: Advance Procurement (PY)			(-171,847)				(-171,847)	U
				938,308				938,308	
11	UH-60 Blackhawk M Model (MYP)			86,295				86,295	U
	Advance Procurement (CY)								
	C (FY 2016 for FY 2017) (M)								
	C (FY 2017 for FY 2018) (M)								
	C (FY 2017 for FY 2019) (M)								
	C (FY 2017 for FY 2020) (M)								
	C (FY 2017 for FY 2021) (M)								
	C (FY 2018 for FY 2019) (M)			(79,434)				(79,434)	
	C (FY 2018 for FY 2020) (M)			(5,092)				(5,092)	
	C (FY 2018 for FY 2021) (M)			(1,769)				(1,769)	
12	UH-60 Black Hawk A and L Models	A	36	76,516			36	76,516	U
13	CH-47 Helicopter	A	6	(211,283)			6	(211,283)	U
	Less: Advance Procurement (PY)			(-8,707)				(-8,707)	U
				202,576				202,576	
14	CH-47 Helicopter			17,820				17,820	U
	Advance Procurement (CY)								
	C (FY 2016 for FY 2017) (M)								
	C (FY 2017 for FY 2018) (M)								
	C (FY 2018 for FY 2019) (M)			(17,820)				(17,820)	
Total Aircraft				2,878,105		126,340		3,004,445	

Budget Activity 02: Modification of Aircraft

Modification of Aircraft

15	MQ-1 Payload (MIP)	A		5,910		41,400		47,310	U
16	Universal Ground Control Equipment (UAS)	A		15,000				15,000	U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016		FY 2017		FY 2017		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
17	Gray Eagle Mods2	A							U
18	Multi Sensor ABN Recon (MIP)			104,350		94,527		94,527	U
19	AH-64 Mods	A		116,153		137,883		187,883	U
20	CH-47 Cargo Helicopter Mods (MYP)			90,330		102,943		163,943	U
21	GRCS SEMA Mods (MIP)	A		4,019		4,055		4,055	U
22	ARL SEMA Mods (MIP)	A		48,302		6,793		6,793	U
23	EMARSS SEMA Mods (MIP)	A		13,669		13,197		13,197	U
24	Utility/Cargo Airplane Mods			16,166		17,526		17,526	U
25	Utility Helicopter Mods			16,893		10,807		10,807	U
26	Network and Mission Plan	A		108,807		74,752		74,752	U
27	Comms, Nav Surveillance	A		82,904		69,960		69,960	U
28	GATM Rollup	A		33,890		45,302		45,302	U
29	RQ-7 UAV MODS	A		87,236		71,169		318,820	U
30	UAS MODS	A				21,804		23,324	U
Total Modification of Aircraft				871,072		714,453		1,122,624	

 Budget Activity 04: Support Equipment and Facilities

Ground Support Avionics

31	Aircraft Survivability Equipment			56,215		67,377		67,377	U
32	Survivability CM			8,917		9,565		9,565	U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
17	Gray Eagle Mods2	A									U
18	Multi Sensor ABN Recon (MIP)			21,400		21,400				21,400	U
19	AH-64 Mods	A									U
20	CH-47 Cargo Helicopter Mods (MYP)										U
21	GRCS SEMA Mods (MIP)	A									U
22	ARL SEMA Mods (MIP)	A									U
23	EMARSS SEMA Mods (MIP)	A	2	42,700	2	42,700			2	42,700	U
24	Utility/Cargo Airplane Mods										U
25	Utility Helicopter Mods										U
26	Network and Mission Plan	A									U
27	Comms, Nav Surveillance	A									U
28	GATM Rollup	A									U
29	RQ-7 UAV MODS	A		1,775		1,775				1,775	U
30	UAS MODS	A		4,420		4,420				4,420	U
Total Modification of Aircraft				70,295		70,295				70,295	

Budget Activity 04: Support Equipment and Facilities

Ground Support Avionics

31 Aircraft Survivability Equipment

32 Survivability CM

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 Exhibit P-1 FY 2018 President's Budget Request
 Total Obligational Authority
 (Dollars in Thousands)

03 May 2017

Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
17	Gray Eagle Mods2	A									U
18	Multi Sensor ABN Recon (MIP)			115,927		115,927				115,927	U
19	AH-64 Mods	A		137,883		187,883				187,883	U
20	CH-47 Cargo Helicopter Mods (MYP)			102,943		163,943				163,943	U
21	GRCS SEMA Mods (MIP)	A		4,055		4,055				4,055	U
22	ARL SEMA Mods (MIP)	A		6,793		6,793				6,793	U
23	EMARSS SEMA Mods (MIP)	A	2	55,897	2	55,897			2	55,897	U
24	Utility/Cargo Airplane Mods			17,526		17,526				17,526	U
25	Utility Helicopter Mods			10,807		10,807				10,807	U
26	Network and Mission Plan	A		74,752		74,752				74,752	U
27	Comms, Nav Surveillance	A		69,960		69,960				69,960	U
28	GATM Rollup	A		45,302		45,302				45,302	U
29	RQ-7 UAV MODS	A		72,944		320,595				320,595	U
30	UAS MODS	A		26,224		27,744				27,744	U
Total Modification of Aircraft				784,748		1,192,919				1,192,919	
Budget Activity 04: Support Equipment and Facilities											
Ground Support Avionics											
31	Aircraft Survivability Equipment			67,377		67,377				67,377	U
32	Survivability CM			9,565		9,565				9,565	U

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03 May 2017

Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
17	Gray Eagle Mods2	A		74,291				74,291	U
18	Multi Sensor ABN Recon (MIP)			68,812		33,475		102,287	U
19	AH-64 Mods	A		238,141				238,141	U
20	CH-47 Cargo Helicopter Mods (MYP)			20,166				20,166	U
21	GRCS SEMA Mods (MIP)	A		5,514				5,514	U
22	ARL SEMA Mods (MIP)	A		11,650				11,650	U
23	EMARSS SEMA Mods (MIP)	A		15,279		36,000		51,279	U
24	Utility/Cargo Airplane Mods			57,737				57,737	U
25	Utility Helicopter Mods			5,900				5,900	U
26	Network and Mission Plan	A		142,102				142,102	U
27	Comms, Nav Surveillance	A		166,050		4,289		170,339	U
28	GATM Rollup	A		37,403				37,403	U
29	RQ-7 UAV MODS	A		83,160				83,160	U
30	UAS MODS	A		26,109				26,109	U
Total Modification of Aircraft				973,224		115,164		1,088,388	

Budget Activity 04: Support Equipment and Facilities

Ground Support Avionics

31	Aircraft Survivability Equipment			70,913				70,913	U
32	Survivability CM			5,884				5,884	U

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2016		FY 2017		FY 2017		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
33	CMWS	A		104,348		41,626		41,626	U	
34	Common Infrared Countermeasures (CIRCM)	A							U	
Other Support										
35	Avionics Support Equipment			6,937		7,007		7,007	U	
36	Common Ground Equipment			58,067		48,234		48,234	U	
37	Aircrew Integrated Systems			44,085		30,297		30,297	U	
38	Air Traffic Control			94,544		50,405		53,405	U	
39	Industrial Facilities			1,207		1,217		1,829	U	
40	Launcher, 2.75 Rocket			3,012		3,055		3,055	U	
Total Support Equipment and Facilities				377,332		258,783		262,395		
Budget Activity 20: Undistributed										
Undistributed										
41	Adj to Match Continuing Resolution	A				2,240,429		2,240,429	U	
Total Undistributed						2,240,429		2,240,429		
Total Aircraft Procurement, Army				6,159,250		5,855,216		7,480,959		

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 (Dollars in Thousands)

03 May 2017

Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
33	CMWS	A		56,115		56,115				56,115	U
34	Common Infrared Countermeasures (CIRCM)	A		108,721		108,721				108,721	U
Other Support											
35	Avionics Support Equipment										U
36	Common Ground Equipment										U
37	Aircrew Integrated Systems										U
38	Air Traffic Control										U
39	Industrial Facilities										U
40	Launcher, 2.75 Rocket										U
Total Support Equipment and Facilities				164,836		164,836				164,836	
Budget Activity 20: Undistributed											
Undistributed											
41	Adj to Match Continuing Resolution	A		-151,184		-151,184				-151,184	U
Total Undistributed				-151,184		-151,184				-151,184	
Total Aircraft Procurement, Army				161,987		184,987				184,987	

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 (Dollars in Thousands)

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Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
33	CMWS	A		97,741		97,741				97,741	U
34	Common Infrared Countermeasures (CIRCM)	A		108,721		108,721				108,721	U
Other Support											
35	Avionics Support Equipment			7,007		7,007				7,007	U
36	Common Ground Equipment			48,234		48,234				48,234	U
37	Aircrew Integrated Systems			30,297		30,297				30,297	U
38	Air Traffic Control			50,405		53,405				53,405	U
39	Industrial Facilities			1,217		1,829				1,829	U
40	Launcher, 2.75 Rocket			3,055		3,055				3,055	U
Total Support Equipment and Facilities				423,619		427,231				427,231	
Budget Activity 20: Undistributed											
Undistributed											
41	Adj to Match Continuing Resolution	A		2,089,245		2,089,245				2,089,245	U
Total Undistributed				2,089,245		2,089,245				2,089,245	
Total Aircraft Procurement, Army				6,017,203		7,665,946				7,665,946	

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 (Dollars in Thousands)

03 May 2017

Appropriation: 2031A Aircraft Procurement, Army

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
33	CMWS	A		26,825		139,742		166,567	U	
34	Common Infrared Countermeasures (CIRCM)	A		6,337		43,440		49,777	U	
Other Support										
35	Avionics Support Equipment			7,038				7,038	U	
36	Common Ground Equipment			47,404				47,404	U	
37	Aircrew Integrated Systems			47,066				47,066	U	
38	Air Traffic Control			83,790				83,790	U	
39	Industrial Facilities			1,397				1,397	U	
40	Launcher, 2.75 Rocket			1,911				1,911	U	
Total Support Equipment and Facilities				298,565		183,182		481,747		
Budget Activity 20: Undistributed										
Undistributed										
41	Adj to Match Continuing Resolution	A							U	
Total Undistributed										
Total Aircraft Procurement, Army				4,149,894		424,686		4,574,580		

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23	02	10	A02111	GRCS SEMA Mods (MIP).....	180
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37	04	30	AZ3000	Avionics Support Equipment.....	298
38	04	30	AZ3100	Common Ground Equipment.....	299
39	04	30	AZ3110	Aircrew Integrated Systems.....	303
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AH-64 MODS	AA6605	21	02	10.....	148
ARL SEMA Mods (MIP)	A02110	24	02	10.....	182
Aerial Common Sensor (ACS) (MIP)	A02005	3	01	10.....	9
Air Traffic Control	AA0050	40	04	30.....	312
Aircraft Survivability Equipment	AZ3504	33	04	10.....	262
Aircrew Integrated Systems	AZ3110	39	04	30.....	303
Avionics Support Equipment	AZ3000	37	04	30.....	298
CH-47 Cargo Helicopter Mods (MYP)	AA0252	22	02	10.....	159
CH-47 Helicopter	A05101	14	01	20.....	82
CH-47 Helicopter, Advance Procurement	A05101	15	01	20.....	100
CIRCM	AZ3537	36	04	10.....	289
CMWS	AZ3517	35	04	10.....	278
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Line Item Title	Line Item Number	Line #	BA	BSA	Page
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EMARSS SEMA Mods (MIP)	A02112	25	02	10.....	184
GATM Rollup	AA0711	30	02	10.....	228
GRCS SEMA Mods (MIP)	A02111	23	02	10.....	180
Gray Eagle Mods2	AA6601	19	02	10.....	125
Helicopter, Light Utility (LUH)	A05001	6	01	20.....	24
Industrial Facilities	AZ3300	41	04	30.....	316
Launcher, 2.75 Rocket	A50100	42	04	30.....	317
MQ-1 Payload (MIP)	A01001	17	02	10.....	104
MQ-1 UAV	A00005	4	01	10.....	11
Multi Sensor ABN Recon (MIP)	AZ2001	20	02	10.....	131
Network And Mission Plan	AA0712	28	02	10.....	197
RQ-7 UAV MODS	A00018	31	02	10.....	244
SATURN ARCH (MIP)	A11301	1	01	10.....	1
Survivability CM	AZ3507	34	04	10.....	276
UAS MODS	A01002	32	02	10.....	257
UH-60 BLACK HAWK A AND L MODELS	A05009	13	01	20.....	76
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UH-60 Blackhawk M Model (MYP), Advance Procurement	AA0005	12	01	20.....	72
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Line Item Title	Line Item Number	Line #	BA	BSA	Page
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Utility/Cargo Airplane Mods	AA0270	26	02	10.....	190

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A11301 / SATURN ARCH (MIP)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	2	1	-	-	-	-	-	-	-	-	3
Gross/Weapon System Cost (<i>\$ in Millions</i>)	45.699	84.000	23.000	-	-	-	-	-	-	-	-	152.699
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	45.699	84.000	23.000	-	-	-	-	-	-	-	-	152.699
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	45.699	84.000	23.000	-	-	-	-	-	-	-	-	152.699

(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>)	-	42,000.000	23,000.000	-	-	-	-	-	-	-	-	50,899.667

Description:

The Saturn Arch aircraft are Airborne Intelligence, Surveillance and Reconnaissance (AISR) aircraft that support a suite of imaging sensors designed to provide persistent surveillance to accomplish day and night image collection and exploitation of Improvised Explosive Devices (IEDs) in designated Named Areas of Interest (NAIs).

The Saturn Arch systems are under the control of operational commanders within USCENTCOM.

Justification:

FY 17 OCO procurement dollars of \$23.000 million supports the procurement of one (1) De Havilland -8 300 series commercial aircraft, Mission Equipment Package (MEP) and the MEP to aircraft integration. Under the Army's Airborne Intelligence, Surveillance and Reconnaissance (AISR) efforts, the Government will procure the aircraft to support JUONS CC-0541 and deploy the systems to CENTCOM.

All COMPO 1 Active

"In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A11300 / Utility F/W Aircraft

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	34	-	3	4	-	4	6	8	6	6	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	309.976	0.879	57.529	75.115	-	75.115	97.517	117.195	100.045	101.396	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	309.976	0.879	57.529	75.115	-	75.115	97.517	117.195	100.045	101.396	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	309.976	0.879	57.529	75.115	-	75.115	97.517	117.195	100.045	101.396	Continuing	Continuing

(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>)	9,116.941	-	19,176.333	18,778.750	-	18,778.750	16,252.833	14,649.375	16,674.167	16,899.333	Continuing	Continuing

Description:

The budget line funds the acquisition of Army fixed wing aircraft to include the procurement of fixed wing aircraft to support Transport and Operational Support Airlift (OSA) requirements, training, and other fixed wing support aircraft. This budget line also provides for the acquisition of new commercial-off-the-shelf (COTS), modified COTS, and non-developmental fixed wing aircraft systems including used aircraft systems.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	3	3	-	3	-	5	-	4
	Total Obligation Authority	0.879	57.529	56.336	-	56.336	-	66.850	-	67.529
ANG	Quantity	-	-	1	-	1	6	3	6	-
	Total Obligation Authority	-	-	18.779	-	18.779	97.517	50.345	100.045	-
AR	Quantity	-	-	-	-	-	-	-	-	2
	Total Obligation Authority	-	-	-	-	-	-	-	-	33.867
Total:	Quantity	-	3	4	-	4	6	8	6	6
Secondary Distribution	Total Obligation Authority	0.879	57.529	75.115	-	75.115	97.517	117.195	100.045	101.396

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A11300 / Utility F/W Aircraft

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A11300 / Utility F/W Aircraft	P-5a, P-21			34 / 309.976	- / 0.879	3 / 57.529	4 / 75.115	- / -	4 / 75.115
P-40	Total Gross/Weapon System Cost				34 / 309.976	- / 0.879	3 / 57.529	4 / 75.115	- / -	4 / 75.115

*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:
 FY 2018 Base procurement dollars in the amount of \$75.115 million will support the procurement of (4) Fixed Wing Aircraft and associated civil and military modifications, Engineering Change Proposals (ECP), and initial spares. Aircraft will be capable of self-deploying over extended ranges; provide CONUS/OCONUS time sensitive movement of key personnel and equipment; support to homeland defense/security operations; support to civil authorities; and Operational Support Airlift (OSA) in support of Major Commands (MACOM) and state requirements.

In accordance with Section 1815 of the FY 2008 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: FY 2018 Army					Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10			P-1 Line Item Number / Title: A11300 / Utility F/W Aircraft			Item Number / Title [DODIC]: A11300 / Utility F/W Aircraft		
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:			
Resource Summary			Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)			34	-	3	4	-	4
Gross/Weapon System Cost (\$ in Millions)			309.976	0.879	57.529	75.115	-	75.115
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			309.976	0.879	57.529	75.115	-	75.115
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			309.976	0.879	57.529	75.115	-	75.115
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			9,116.941	-	19,176.333	18,778.750	-	18,778.750

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Aircraft Procurement/Modification ^(†)	7,286.176	34	247.730	-	-	-	13,402.333	3	40.207	13,157.500	4	52.630	-	-	-	13,157.500	4	52.630
Engineering Changes	-	-	3.271	-	-	-	-	-	-	-	-	0.197	-	-	-	-	-	0.197
Initial Spares	-	-	13.687	-	-	-	-	-	2.894	-	-	2.872	-	-	-	-	-	2.872
Systems Test and Evaluation	-	-	2.832	-	-	-	-	-	-	-	-	3.527	-	-	-	-	-	3.527
Integration Engineering	-	-	3.190	-	-	-	-	-	5.000	-	-	5.095	-	-	-	-	-	5.095
<i>Subtotal: Recurring Cost</i>	-	-	270.710	-	-	-	-	-	48.101	-	-	64.321	-	-	-	-	-	64.321
<i>Subtotal: Flyaway Cost</i>	-	-	270.710	-	-	-	-	-	48.101	-	-	64.321	-	-	-	-	-	64.321
Support Cost																		
Program Management	-	-	27.498	-	-	0.879	-	-	7.175	-	-	8.353	-	-	-	-	-	8.353
Data	-	-	6.858	-	-	-	-	-	1.636	-	-	2.060	-	-	-	-	-	2.060
Support Equipment	-	-	-	-	-	-	-	-	0.617	-	-	0.381	-	-	-	-	-	0.381
Training	-	-	1.964	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Post Production Mods	-	-	2.946	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	39.266	-	-	0.879	-	-	9.428	-	-	10.794	-	-	-	-	-	10.794
Gross/Weapon System Cost	9,116.941	34	309.976	-	-	0.879	19,176.333	3	57.529	18,778.750	4	75.115	-	-	-	18,778.750	4	75.115

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Exhibit P-5, Cost Analysis: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A11300 / Utility F/W Aircraft	Item Number / Title [DODIC]: A11300 / Utility F/W Aircraft
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	3	3	-	3
	Total Obligation Authority	0.879	57.529	56.336	-	56.336
ANG	Quantity	-	-	1	-	1
	Total Obligation Authority	-	-	18.779	-	18.779
Total:	Quantity	-	3	4	-	4
Secondary Distribution	Total Obligation Authority	0.879	57.529	75.115	-	75.115

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A11300 / Utility F/W Aircraft	Item Number / Title [DODIC]: A11300 / Utility F/W Aircraft
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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
Aircraft Procurement/Modification ^(†)		2017	Competitive Contract Award / TBD	C / FFP	Redstone Arsenal, AL	May 2018	Sep 2019	3	13,402.330			Jun 2016
Aircraft Procurement/Modification ^(†)		2018	Competitive Contract Award / TBD	C / FFP	Redstone Arsenal, AL	May 2018	Sep 2019	4	13,157.500			Dec 2016

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A11300 / Utility F/W Aircraft	Item Number / Title [DODIC]: A11300 / Utility F/W Aircraft
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
Aircraft Procurement/Modification																															
Prior Years Deliveries: 34																															
1		2017	ARMY	3	0	3																							3	0	
1		2018	ARMY	4	0	4																							4	0	
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A11300 / Utility F/W Aircraft	Item Number / Title [DODIC]: A11300 / Utility F/W Aircraft
----------------------------------------------------------------------------------	-----------------------------------------------------------------------	----------------------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Competitive Contract Award - TBD	1	9	18	9	6	18	24	0	6	15	21

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A02005 / Aerial Common Sensor (ACS) (MIP)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	8	5	-	-	-	-	-	-	-	-	-	13
Gross/Weapon System Cost (<i>\$ in Millions</i>)	238.590	96.500	-	-	-	-	-	-	-	-	-	335.090
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	238.590	96.500	-	-	-	-	-	-	-	-	-	335.090
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	238.590	96.500	-	-	-	-	-	-	-	-	-	335.090

(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>)	29,823.750	19,300.000	-	-	-	-	-	-	-	-	-	25,776.154

Description:

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. EMARSS provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS aircraft will be assigned to the U.S. Army Intelligence and Security Command's (INSCOM) Aerial Exploitation Battalions (AEB). EMARSS is an improvement over the existing Medium Altitude Reconnaissance and Surveillance System Quick Reaction Capability (MARSS QRC) in that it hosts an on board Distributed Common Ground System - Army (DCGS-A) capability, improved satellite communications, improved aircraft performance, and life cycle logistics sustainment capability.

EMARSS will consist of a commercial derivative aircraft equipped with an Electro-optical/Infrared (EO/IR) sensor with Full Motion Video (FMV), a Communications Intelligence (COMINT) collection system, an Aerial Precision Geolocation (APG) system, tactical line-of-site (LOS) and beyond line-of-site (BLOS) communications suite, two DCGS-A enabled operator workstations and a self-protection suite. EMARSS is built to allow future capabilities to be integrated on platform with the addition of a third carry-on workstation.

EMARSS will operate in direct support of tactical missions. EMARSS, integrating elements of the DCGS-A, will provide efficient response to Combat Forces with Intelligence, Surveillance and Reconnaissance (ISR) tasking.

The Army Acquisition Objective for EMARSS is 36 systems, with an Army Procurement Objective of 24, to include the following variants: EMARSS-G (Constant Hawk & TACOP LiDAR); EMARSS-V (VaDER); EMARSS-M (Liberty Project Aircraft (LPA)); and EMARSS-S (Engineering and Manufacturing Development (EMD)) systems.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	5	-	-	-	-	-	-	-	-
	Total Obligation Authority	96.500	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	5	-	-	-	-	-	-	-	-
	Total Obligation Authority	96.500	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing		P-1 Line Item Number / Title: A02005 / Aerial Common Sensor (ACS) (MIP)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

Justification:
There is no FY 2018 Funding on this line.

For FY 2016 forward, the overall EMARSS efforts are found in the following two lines; AZ2054 EMARSS Payloads (Project Manager Sensors - Aerial Intelligence (PM SAI)) and A02112 EMARSS SEMA (Project Manager Fixed Wing (PM FW)). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne Intelligence systems to Program Executive Officer for Aviation (PEO-AVN); and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors (PEO-IEWS).

In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A00005 / MQ-1 UAV

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305204A, 0305219A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	146	20	13	2	9	11	-	-	-	-	-	190
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,561.784	314.273	185.388	30.206	87.300	117.506	-	-	-	-	-	3,178.951
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,561.784	314.273	185.388	30.206	87.300	117.506	-	-	-	-	-	3,178.951
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,561.784	314.273	185.388	30.206	87.300	117.506	-	-	-	-	-	3,178.951

(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>)	17,546.466	15,713.650	14,260.615	15,103.000	9,700.000	10,682.364	-	-	-	-	-	16,731.321

Description:

The MQ-1C Gray Eagle provides reconnaissance, surveillance, intelligence, security, attack, and command and control missions providing dedicated mission configured Unmanned Aircraft System (UAS) support to assigned and other Army/Joint Force units based upon commander's priorities. The MQ-1C Gray Eagle is a dedicated, multi-mission UAS fielded to the 10 Army Combat Aviation Brigades (CAB), 2 Army Intelligence and Security Command (INSCOM) units, 2 Army Special Operations Forces (ARSOF) unit, and 1 company at the National Training Center (NTC). The Army Acquisition Objective (AAO) is 167 aircraft.

An MQ-1C Gray Eagle Company consists of 12 Aircraft, 6 Universal Ground Control Station (UGCS) equipment, Universal Ground Data Terminals, 3 Satellite Ground Data Terminals (SGDT), Automatic Take-Off & Landing System (ATLS), standard equipment package, and payloads to include; Electro-Optical/Infrared Laser Range Finder/Laser Designator (EO/IR/LD HD), Synthetic Aperture Radar/Ground Moving Target Indicator (SAR/GMTI), communication relay, and up to 4 HELLFIRE missiles.

The 63 aircraft to be procured (19 aircraft in FY 2015, 20 aircraft in FY 2016, 13 aircraft in FY 2017, 2 aircraft in FY 2018, and 9 War Replacement Aircraft (WRA) in FY18) will be delivered in the MQ-1C Gray Eagle Extended Range (ER) configuration. This configuration change is in compliance with the \$49 million Congressional add in FY 2015, and the \$17 million Congressional add in FY16.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 10: Fixed Wing **P-1 Line Item Number / Title:** A00005 / MQ-1 UAV

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305204A, 0305219A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>	Quantity / Total Cost <i>(Each) / (\$ M)</i>
P-5	A00005 / MQ-1 UAV	P-5a, P-21			146 / 2,561.784	20 / 314.273	13 / 185.388	2 / 30.206	9 / 87.300	11 / 117.506
P-40	Total Gross/Weapon System Cost				146 / 2,561.784	20 / 314.273	13 / 185.388	2 / 30.206	9 / 87.300	11 / 117.506

*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:
 The FY 2018 MQ-1C Gray Eagle funding of \$117.506 million provides the procurement of two aircraft, two SADT's, and GFE, nine War Replacement Assets (WRA), and New Equipment Training (NET) for two units.

In accordance with 1815 of the FY 2008 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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	146	20	13	2	9	11
Gross/Weapon System Cost (\$ in Millions)	2,561.784	314.273	185.388	30.206	87.300	117.506
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,561.784	314.273	185.388	30.206	87.300	117.506
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,561.784	314.273	185.388	30.206	87.300	117.506

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	17,546.466	15,713.650	14,260.615	15,103.000	9,700.000	10,682.364

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Aircraft ^(†)	4,411.295	146	644.049	6,796.800	20	135.936	6,926.077	13	90.039	7,063.290	2	14.127	7,063.290	9	63.570	7,063.364	11	77.697
SATCOM Airborne Data Terminal (SADT)	929.767	133	123.659	519.900	20	10.398	529.769	13	6.887	540.275	2	1.081	540.275	9	4.862	540.273	11	5.943
Aircraft Container	-	-	-	377.650	20	7.553	384.846	13	5.003	392.500	2	0.785	392.500	9	3.532	392.455	11	4.317
Universal Ground Control Station (UGCS)	3,497.622	45	157.393	5,088.167	6	30.529	5,185.000	3	15.555	-	-	-	-	-	-	-	-	-
Mobile GCS (MGCS)	1,127.889	18	20.302	5,546.000	1	5.546	-	-	-	-	-	-	-	-	-	-	-	-
Universal Ground Data Terminal (UGDT)	1,440.229	48	69.131	1,241.667	9	11.175	1,265.333	3	3.796	-	-	-	-	-	-	-	-	-
Universal Satellite Ground Data Terminal (USGDT)	-	-	-	1,574.667	3	4.724	-	-	-	-	-	-	-	-	-	-	-	-
Government Furnished Equipment (GFE)	-	-	40.185	-	-	10.066	-	-	6.198	-	-	-	-	-	5.518	-	-	5.518
Ground Base Sense and Avoid (GBSAA)	-	-	62.133	-	-	0.500	-	-	0.500	-	-	0.500	-	-	-	-	-	0.500
Ground Control Station (GCS)	3,172.400	10	31.724	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portable Ground Control Station	775.500	10	7.755	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Satellite Ground Data Terminal (SGDT)	1,911.094	32	61.155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Ground Data Terminal (GDT)	1,229.071	14	17.207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portable Ground Data Terminal (PGDT)	379.250	4	1.517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Automatic Take-Off & Landing Sys (ATLS)	1,024.667	33	33.814	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tower Trailers	199.357	84	16.746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware-Retrofit Platoon Configuration	-	-	104.316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1,391.086	-	-	216.427	-	-	127.978	-	-	16.492	-	-	77.483	-	-	93.975
<i>Subtotal: Flyaway Cost</i>	-	-	1,391.086	-	-	216.427	-	-	127.978	-	-	16.492	-	-	77.483	-	-	93.975
Hardware Cost																		
Recurring Cost																		
Initial Spares	9,565.810	21	200.882	4,535.667	3	13.607	-	-	-	-	-	-	-	-	-	-	-	-
Ground Support Equipment (GSE)	2,487.833	18	44.781	703.333	3	2.110	-	-	-	-	-	-	-	-	-	-	-	-
Data (Fielding Manuals)	-	-	3.989	-	-	1.283	-	-	0.872	-	-	-	-	-	-	-	-	-
Air Beam Shelter	-	-	6.403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Modifications	-	-	36.455	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Safety Item	-	-	0.093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	292.603	-	-	17.000	-	-	0.872	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
MQ-1C Gray Eagle Extended Range / Non-Recurring	-	-	49.000	-	-	17.000	-	-	-	-	-	-	-	-	-	-	-	-
Non-Recurring Production	-	-	20.587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	69.587	-	-	17.000	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	362.190	-	-	34.000	-	-	0.872	-	-	-	-	-	-	-	-	-
Software Cost																		
Recurring Cost																		
Software Modifications	-	-	23.143	-	-	5.791	-	-	2.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	23.143	-	-	5.791	-	-	2.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Software Cost</i>	-	-	23.143	-	-	5.791	-	-	2.000	-	-	-	-	-	-	-	-	-
Package Fielding Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10						P-1 Line Item Number / Title: A00005 / MQ-1 UAV						Item Number / Title [DODIC]: A00005 / MQ-1 UAV					

ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
First Destination Transportation	-	-	1.393	-	-	0.168	-	-	1.714	-	-	-	-	-	-	-	-	-
New Equipment Training (NET)	-	-	67.770	-	-	22.579	-	-	8.562	-	-	12.475	-	-	-	-	-	12.475
<i>Subtotal: Recurring Cost</i>	-	-	69.163	-	-	22.747	-	-	10.276	-	-	12.475	-	-	-	-	-	12.475
Non Recurring Cost																		
Training Devices	-	-	81.332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interim Contractor Logistics Support	-	-	18.802	-	-	11.840	-	-	21.492	-	-	-	-	-	-	-	-	-
Universal Mission Simulators Spares	-	-	7.325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	107.459	-	-	11.840	-	-	21.492	-	-	-	-	-	-	-	-	-
<i>Subtotal: Package Fielding Cost</i>	-	-	176.622	-	-	34.587	-	-	31.768	-	-	12.475	-	-	-	-	-	12.475
Logistics Cost																		
Recurring Cost																		
Logistics Support	-	-	52.306	-	-	7.884	-	-	6.894	-	-	-	-	-	4.236	-	-	4.236
<i>Subtotal: Recurring Cost</i>	-	-	52.306	-	-	7.884	-	-	6.894	-	-	-	-	-	4.236	-	-	4.236
<i>Subtotal: Logistics Cost</i>	-	-	52.306	-	-	7.884	-	-	6.894	-	-	-	-	-	4.236	-	-	4.236
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	218.993	-	-	2.797	-	-	5.279	-	-	1.238	-	-	-	-	-	1.238
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	218.993	-	-	2.797	-	-	5.279	-	-	1.238	-	-	-	-	-	1.238
Support - Peculiar Support Equipment Cost																		
Support and Handling Equipment	-	-	6.452	-	-	2.104	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Peculiar Support Equipment Cost</i>	-	-	6.452	-	-	2.104	-	-	-	-	-	-	-	-	-	-	-	-
Support - Program Management Cost																		
Contractor Management	-	-	166.820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Program Management Cost</i>	-	-	166.820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - System Engineering Cost																		
System Engineering	-	-	52.711	-	-	5.760	-	-	6.119	-	-	-	-	-	3.020	-	-	3.020
<i>Subtotal: Support - System Engineering Cost</i>	-	-	52.711	-	-	5.760	-	-	6.119	-	-	-	-	-	3.020	-	-	3.020

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10						P-1 Line Item Number / Title: A00005 / MQ-1 UAV						Item Number / Title [DODIC]: A00005 / MQ-1 UAV					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Support - System Technical Support (STS) Cost																		
System Technical Support (STS)	-	-	71.019	-	-	4.923	-	-	4.478	-	-	-	-	-	2.561	-	-	2.561
<i>Subtotal: Support - System Technical Support (STS) Cost</i>	-	-	71.019	-	-	4.923	-	-	4.478	-	-	-	-	-	2.561	-	-	2.561
Support - System Test and Evaluation Cost																		
Test and Evaluation Support	-	-	40.442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - System Test and Evaluation Cost</i>	-	-	40.442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	17,546.466	146	2,561.784	15,713.650	20	314.273	14,260.615	13	185.388	15,103.000	2	30.206	9,700.000	9	87.300	10,682.364	11	117.506

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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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
Aircraft ^(†)		2011	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FPIF	AMCOM	Apr 2011	Jan 2013	29	4,046.000	Y	Dec 2010	Dec 2010
Aircraft ^(†)		2012	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FPIF	AMCOM	Jul 2012	Apr 2014	29	4,206.000	Y	Dec 2011	Dec 2011
Aircraft ^(†)		2013	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Sep 2013	May 2015	19	5,130.733	Y	May 2012	May 2012
Aircraft ^(†)		2014	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Mar 2015	Oct 2016	23	4,705.870	Y	Nov 2013	Nov 2013
Aircraft ^(†)		2015	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Jun 2015	Oct 2017	19	6,742.158	Y	Mar 2015	Mar 2015
Aircraft ^(†)		2016	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Dec 2016	Oct 2018	20	6,796.800	Y	Dec 2015	Dec 2015
Aircraft ^(†)		2017	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Sep 2017	May 2019	13	6,926.080	Y	Mar 2018	Sep 2017
Aircraft ^(†)		2018	GENERAL ATOMICS / ASI / SAN DIEGO	SS / FFP	AMCOM	Jun 2018	Feb 2020	11	7,063.360	N	Oct 2018	Jun 2018

^(†) indicates the presence of a P-21

Remarks:
 FY2012 LRIP III delivery schedule is for 12 months and 1 day.
 FY2013: MQ-1C Gray Eagle exercised the option for four aircraft, and four SATCOM Air Data Terminals (SADT) with FY14 APA funds.
 FY2014 FRP II delivery schedule includes an option for 4 Aircraft. The option exercised approximately 3 months after base contract award thereby extending the delivery schedule.

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2011												Fiscal Year 2012												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2010	BAL DUE AS OF 1 OCT	Calendar Year 2011												Calendar Year 2012												
							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

Aircraft																														
Prior Years Deliveries: 27																														
	1	2011	ARMY	29	0	29																								29
	1	2012	ARMY	29	0	29																								29
	1	2013	ARMY	19	0	19																								19
	1	2014	ARMY	23	0	23																								23
	1	2015	ARMY	19	0	19																								19
	1	2016	ARMY	20	0	20																								20
	1	2017	ARMY	13	0	13																								13
	1	2018	ARMY	11	0	11																								11

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10 **P-1 Line Item Number / Title:** A00005 / MQ-1 UAV **Item Number / Title [DODIC]:** A00005 / MQ-1 UAV

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2013													Fiscal Year 2014													BALANCE				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	Calendar Year 2013													Calendar Year 2014															
							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					
Aircraft																																			
Prior Years Deliveries: 27																																			
1		2011	ARMY	29	0	29	-	-	-	1	2	2	2	3	2	3	2	3	3	3	3												0		
1		2012	ARMY	29	0	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	3	2	16
1		2013	ARMY	19	0	19													A	-	-	-	-	-	-	-	-	-	-	-	-	-	19		
1		2014	ARMY	23	0	23																											23		
1		2015	ARMY	19	0	19																												19	
1		2016	ARMY	20	0	20																												20	
1		2017	ARMY	13	0	13																												13	
1		2018	ARMY	11	0	11																												11	
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10 **P-1 Line Item Number / Title:** A00005 / MQ-1 UAV **Item Number / Title [DODIC]:** A00005 / MQ-1 UAV

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016												
							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
Aircraft																															
Prior Years Deliveries: 27																															
1		2011	ARMY	29	29	0																							0		
1		2012	ARMY	29	13	16	3	2	2	2	2	3	2																0		
1		2013	ARMY	19	0	19	-	-	-	-	-	-	-	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0		
1		2014	ARMY	23	0	23											A	-	-	-	-	-	-	-	-	-	-	-	23		
1		2015	ARMY	19	0	19											A	-	-	-	-	-	-	-	-	-	-	-	19		
1		2016	ARMY	20	0	20																							20		
1		2017	ARMY	13	0	13																							13		
1		2018	ARMY	11	0	11																							11		
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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Cost Elements <i>(Units in Each)</i>							Fiscal Year 2017													Fiscal Year 2018													BALANCE			
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018																
							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						
Aircraft																																				
Prior Years Deliveries: 27																																				
1		2011	ARMY	29	29	0																														0
1		2012	ARMY	29	29	0																														0
1		2013	ARMY	19	19	0																														0
1		2014	ARMY	23	0	23	1	2	2	1	2	2	1	1	2	1	2	2	1	2	1															0
1		2015	ARMY	19	0	19	-	-	-	-	-	-	-	-	-	-	-	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	0
1		2016	ARMY	20	0	20			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	
1		2017	ARMY	13	0	13											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
1		2018	ARMY	11	0	11																														11
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019													Fiscal Year 2020													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							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			

Aircraft																													
Prior Years Deliveries: 27																													
1	2011	ARMY	29	29	0																								0
1	2012	ARMY	29	29	0																								0
1	2013	ARMY	19	19	0																								0
1	2014	ARMY	23	23	0																								0
1	2015	ARMY	19	19	0																								0
1	2016	ARMY	20	0	20	2	2	2	2	2	2	2	2	1	1	1	1												0
1	2017	ARMY	13	0	13	-	-	-	-	-	-	-	-	2	2	2	2	2	1	1	1								0
1	2018	ARMY	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	1	1	1	1	1	0

						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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 10	P-1 Line Item Number / Title: A00005 / MQ-1 UAV	Item Number / Title [DODIC]: A00005 / MQ-1 UAV
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	GENERAL ATOMICS / ASI - SAN DIEGO	12	24	60	8	7	23	30	8	8	24	32

Remarks:
 FY2012 LRIP III delivery schedule is for 12 months and 1 day.FY2013: MQ-1C Gray Eagle exercised the option for four aircraft, and four SATCOM Air Data Terminals (SADT) with FY14 APA funds.FY2014 FRP II delivery schedule includes an option for 4 Aircraft. The option exercised approximately 3 months after base contract award therefor extending the 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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	397	28	-	13	-	13	3	-	-	-	-	441
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,544.300	187.177	-	108.383	-	108.383	32.500	-	-	-	-	2,872.360
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,544.300	187.177	-	108.383	-	108.383	32.500	-	-	-	-	2,872.360
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,544.300	187.177	-	108.383	-	108.383	32.500	-	-	-	-	2,872.360

(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>)	6,408.816	6,684.893	-	8,337.154	-	8,337.154	10,833.333	-	-	-	-	6,513.288

Description:

The UH-72A platform will provide the flexibility to respond to Homeland Security (HLS) requirements, conduct civil search and rescue operations, support damage assessment, support test and training centers, perform generating force missions, augment the HH-60 Medical Evacuation (MEDEVAC) aircraft, and provide support to CONUS counterdrug operations. The UH-72A will conduct general support utility helicopter missions and execute tasks as part of an integrated effort with other joint services, government agencies, and non-governmental organizations. The UH-72A provides time-sensitive transport of supplies or key personnel, air mobility to assist civil authorities through the execution of search and rescue or disaster relief operations, advanced warning/detection of external threats to include threats to our borders, augmentation of air ambulance capabilities, and limited command and control operations in the conduct of HLS. As part of the Aviation Restructure Initiative (ARI) the UH-72A will become the primary training aircraft at the US Army Aviation Center of Excellence (USAACE) in Ft Rucker. The UH-72A program is currently in full rate production.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	28	-	13	-	13	3	-	-	-
Total Obligation Authority	187.177	-	108.383	-	108.383	32.500	-	-	-
Total: Secondary Distribution									
Quantity	28	-	13	-	13	3	-	-	-
Total Obligation Authority	187.177	-	108.383	-	108.383	32.500	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05001 / Helicopter, Light Utility (LUH)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05001 / Helicopter, Light Utility (LUH)	P-5a, P-21			397 / 2,544.300	28 / 187.177	- / -	13 / 108.383	- / -	13 / 108.383
P-40	Total Gross/Weapon System Cost				397 / 2,544.300	28 / 187.177	- / -	13 / 108.383	- / -	13 / 108.383

*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:

- FY18 base procurement dollars in the amount of \$108.383M will support the procurement of 13 UH-72A Lakota aircraft, fielding, and program management for one year.
- Army temporarily enjoined from procuring the remaining 16 aircraft in FY16. Only 12 of 28 aircraft have been procured in FY16.
- The remaining 16 aircraft deliveries beyond February 2018 reflects the enjoined aircraft as reflected on the P-21.

In accordance with section 1815 of the FY 2008 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.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05001 / Helicopter, Light Utility (LUH)	Item Number / Title [DODIC]: A05001 / Helicopter, Light Utility (LUH)
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	---------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	397	28	-	13	-	13
Gross/Weapon System Cost (\$ in Millions)	2,544.300	187.177	-	108.383	-	108.383
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	2,544.300	187.177	-	108.383	-	108.383
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	2,544.300	187.177	-	108.383	-	108.383

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6,408.816	6,684.893	-	8,337.154	-	8,337.154

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Airframes/Includes non-recurring ^(†)	5,164.043	397	2,050.125	5,757.036	28	161.197	-	-	-	6,627.231	13	86.154	-	-	-	6,627.231	13	86.154
B Kits (MEDEVAC & Hoist)	200.449	78	15.635	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Changes	-	-	281.433	-	-	14.700	-	-	-	-	-	10.066	-	-	-	-	-	10.066
System Engineering & Program Management	-	-	74.289	-	-	11.000	-	-	-	-	-	10.000	-	-	-	-	-	10.000
Systems Test & Evaluation	-	-	2.054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engineering Services	-	-	21.067	-	-	-	-	-	-	-	-	2.023	-	-	-	-	-	2.023
Procedural Trainers	3,294.500	4	13.178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	86.495	-	-	0.280	-	-	-	-	-	0.140	-	-	-	-	-	0.140
Other program Requirements	-	-	0.024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	2,544.300	-	-	187.177	-	-	-	-	-	108.383	-	-	-	-	-	108.383
<i>Subtotal: Flyaway Cost</i>	-	-	2,544.300	-	-	187.177	-	-	-	-	-	108.383	-	-	-	-	-	108.383
Gross/Weapon System Cost	6,408.816	397	2,544.300	6,684.893	28	187.177	-	-	-	8,337.154	13	108.383	-	-	-	8,337.154	13	108.383

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	28	-	13	-	13

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Exhibit P-5, Cost Analysis: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05001 / Helicopter, Light Utility (LUH)	Item Number / Title [DODIC]: A05001 / Helicopter, Light Utility (LUH)
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	---------------------------------------------------------------------------------

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Total Obligation Authority	187.177	-	108.383	-	108.383
Total:					
Secondary Distribution					
Quantity	28	-	13	-	13
Total Obligation Authority	187.177	-	108.383	-	108.383

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05001 / Helicopter, Light Utility (LUH)	Item Number / Title [DODIC]: A05001 / Helicopter, Light Utility (LUH)
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------	---------------------------------------------------------------------------------

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
Airframes/Includes non-recurring ^(†)		2012	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Dec 2011	Sep 2012	39	5,375.000	N		
Airframes/Includes non-recurring ^(†)		2013	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Dec 2012	Sep 2013	35	5,090.000	N		
Airframes/Includes non-recurring ^(†)		2014	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Dec 2013	Sep 2014	37	5,240.162	N		
Airframes/Includes non-recurring ^(†)		2015	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Dec 2014	Dec 2015	55	5,500.000	N		
Airframes/Includes non-recurring ^(†)		2016	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Nov 2015	Aug 2017	28	5,757.036	N		
Airframes/Includes non-recurring ^(†)		2018	AHI / Columbus, MS	C / FFP	AHI Columbus, MS	Feb 2018	Nov 2019	13	6,627.230	N		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH) **Item Number / Title [DODIC]:** A05001 / Helicopter, Light Utility (LUH)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2012												Fiscal Year 2013												BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	Calendar Year 2012												Calendar Year 2013													
							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	
Airframes/Includes non-recurring																																
Prior Years Deliveries: 231																																
1		2012	ARMY	39	0	39			A -	-	-	-	-	-	-	-	-	4	2	3	3	3	3	3	3	4	3	4	3	3	-	1
1		2013	ARMY	35	0	35															A -	-	-	-	-	-	-	-	-	-	3	32
1		2014	ARMY	37	0	37																										37
1		2015	ARMY	55	0	55																										55
1		2016	ARMY	28	0	28																										28
1		2018	ARMY	13	0	13																										13
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH) **Item Number / Title [DODIC]:** A05001 / Helicopter, Light Utility (LUH)

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	
Airframes/Includes non-recurring																																
Prior Years Deliveries: 231																																
1		2012	ARMY	39	38	1	-	1																					0			
1		2013	ARMY	35	3	32	3	3	3	3	2	3	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	1			
1		2014	ARMY	37	0	37			A	-	-	-	-	-	-	-	1	2	1	3	2	3	1	2	2	4	4	2	2	8		
1		2015	ARMY	55	0	55																							55			
1		2016	ARMY	28	0	28																							28			
1		2018	ARMY	13	0	13																							13			
									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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH) **Item Number / Title [DODIC]:** A05001 / Helicopter, Light Utility (LUH)

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
Airframes/Includes non-recurring																															
Prior Years Deliveries: 231																															
1		2012	ARMY	39	39	0																							0		
1		2013	ARMY	35	34	1	-	-	-	-	-	-	-	-	-	1														0	
1		2014	ARMY	37	29	8	2	2	4																					0	
1		2015	ARMY	55	0	55	-	-	3	1	1	1	2	3	3	-	2	4	4	3	3	3	4	4	3	4	4	2	1	0	
1		2016	ARMY	28	0	28		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	25	
1		2018	ARMY	13	0	13																								13	

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH) **Item Number / Title [DODIC]:** A05001 / Helicopter, Light Utility (LUH)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
Airframes/Includes non-recurring																															
Prior Years Deliveries: 231																															
1		2012	ARMY	39	39	0																							0		
1		2013	ARMY	35	35	0																							0		
1		2014	ARMY	37	37	0																							0		
1		2015	ARMY	55	55	0																							0		
1		2016	ARMY	28	3	25	2	2	2	2	2	2	2	2	2	2	2	2	1										0		
1		2018	ARMY	13	0	13						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	A	A	U	U	U	E	C	O	V	E	A	E	A	A	U	U	A	S	
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05001 / Helicopter, Light Utility (LUH) **Item Number / Title [DODIC]:** A05001 / Helicopter, Light Utility (LUH)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							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
Airframes/Includes non-recurring																															
Prior Years Deliveries: 231																															
1		2012	ARMY	39	39	0																							0		
1		2013	ARMY	35	35	0																							0		
1		2014	ARMY	37	37	0																							0		
1		2015	ARMY	55	55	0																							0		
1		2016	ARMY	28	28	0																							0		
1		2018	ARMY	13	0	13	-	2	2	2	2	2	2	2	1														0		
							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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05001 / Helicopter, Light Utility (LUH)
		Item Number / Title [DODIC]: A05001 / Helicopter, Light Utility (LUH)

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	AHI - Columbus, MS	20	30	60	0	10	12	22	0	2	9	11

Remarks:

Lead times reflective of actual commercial lead times. FY18 base procurement dollars in the amount of \$108.383M will support the procurement of 13 UH-72A Lakota aircraft, fielding, and program management for one year. Army temporarily enjoined from procuring the remaining 16 aircraft in FY16. Only 12 of 28 aircraft have been procured in FY16. The remaining 16 aircraft deliveries beyond February 2018 reflects the enjoined aircraft as reflected in the P-21. Contract Award dates do not reflect potential FY17 contract awards associated with potential Congressional adds.

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05111 / AH-64 Apache Block IIIA Reman

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	176	64	52	48	2	50	50	49	48	48	97	634
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,688.412	1,300.799	1,091.054	911.136	39.040	950.176	996.134	1,002.539	939.168	979.999	1,888.130	12,836.411
Less PY Advance Procurement (<i>\$ in Millions</i>)	685.442	157.338	209.930	185.160	-	185.160	170.910	174.550	190.870	169.460	356.618	2,300.278
Net Procurement (P-1) (<i>\$ in Millions</i>)	3,002.970	1,143.461	881.124	725.976	39.040	765.016	825.224	827.989	748.298	810.539	1,531.512	10,536.133
Plus CY Advance Procurement (<i>\$ in Millions</i>)	842.776	209.930	185.160	170.910	-	170.910	174.550	190.870	169.460	192.230	164.392	2,300.278
Total Obligation Authority (<i>\$ in Millions</i>)	3,845.746	1,353.391	1,066.284	896.886	39.040	935.926	999.774	1,018.859	917.758	1,002.769	1,695.904	12,836.411

(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>)	20,956.886	20,324.984	20,981.808	18,982.000	19,520.000	19,003.520	19,922.680	20,459.980	19,566.000	20,416.646	19,465.258	20,246.705

Description:

AH-64E Reman is a complete remanufacture using a new airframe and meets all the requirements for Army and Joint interoperability goals for the future and adds significant combat capability while addressing obsolescence issues, ensuring the aircraft remains a viable combat multiplier beyond its lifecycle. The Army's only heavy attack helicopter, the AH-64E is fully digital with the latest technologies, adding significant combat capability to the aircraft. The AH-64E Apache is implementing an incremental design and fielding strategy as noted in the approved Capability Production Document (CPD). AH-64E Capability Version 1 includes Improved Drive and Propulsion System, Composite Main Rotor Blades (CMRB), Unmanned Aircraft System (UAS) Level III-IV Control, Improved Communications Suite, Improved Electronics / Modular Open Systems Approach, and Radar Electronics Unit (REU). Capability Version 4 includes Link 16, Air to Air to Ground (AAG) Video Relay, System Level Embedded Diagnostics (SLED), and provisions for Removable Crashworthy External Fuel Systems (RCEFS). Capability Version 6 includes Fire Control Radar (FCR) enhancements, Maritime Targeting Mode, Link-16 and Soldier Radio Waveform (SRW), Image Blending, Multi-Mode Laser (MML), and Interactive Electronic Technical Manual (IETM) Upgrade. Production Lots 1-4 are Version 1 capable, Production Lots 5-7 are Version 4 capable, and Version 6 is planned for inclusion into the remaining Production Lots beginning with Production Lot 8. Upgrades are integrated as incremental block modifications. The program addresses operational shortfalls identified during real-world combat missions, meets Apache Capability Production Document (CPD) requirements for modernization, and necessary training, initial spares, and Peculiar Ground Support Equipment (PGSE). AH-64E aircraft entered the fleet in 2012.

"In accordance with Section 1815 of the FY 2008 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."

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	64	52	48	2	50	50	49	48	48
	Total Obligation Authority	1,353.391	1,066.284	896.886	39.040	935.926	999.774	1,018.859	917.758	1,002.769
Total: Secondary Distribution	Quantity	64	52	48	2	50	50	49	48	48
	Total Obligation Authority	1,353.391	1,066.284	896.886	39.040	935.926	999.774	1,018.859	917.758	1,002.769

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05111 / AH-64 Apache Block IIIA Reman

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05111 / AH-64 Apache Block IIIA Reman	P-5a, P-21			176 / 3,688.412	64 / 1,300.799	52 / 1,091.054	48 / 911.136	2 / 39.040	50 / 950.176
P-40	Total Gross/Weapon System Cost				176 / 3,688.412	64 / 1,300.799	52 / 1,091.054	48 / 911.136	2 / 39.040	50 / 950.176

*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:
 FY18 Base funding in the amount of \$896.886 million supports Advance Procurement (AP), Full Rate Production (FRP) of AH-64E Apache Reman aircraft and associated support. This program was restructured in 2010 from the single AH-64E Apache (A05111) into two separate programs, AH-64E Apache Reman (A05111) and AH-64E Apache New Build (A05133).
 The Apache Reman Program assumes a cost sharing with the New Build Program in accordance with the New Build Army Program Baseline (APB).
 Funding goes to the Active component.
 The current AH-64E Apache Remanufacture Acquisition Program Baseline procurement objective is 634 aircraft.
 The Apache Reman Program quantities and associated funding include a Multi-year contract starting in FY17- FY21 and assumes approval for a subsequent Multi-year contract in FY22 through the end of the program. The Apache Reman Program is planning continued production of aircraft through FY2024 to meet the Army Acquisition Objective (AAO).
 Currently the total lead time (time from when first materials must be committed to aircraft delivery) is in excess of 24 months. The Apache Project Management Office (PMO) and Boeing are working to reduce all lead times to within the 24 month timeframe. The Cost Assessment and Program Evaluation (CAPE) Independent Cost Estimate (ICE) utilized 18% to 22% for Advance Procurement (AP). Each year's AP can be divided into 2 segments: 1) Government Furnished Equipment (GFE) such as engines, sensors and avionics and 2) Contractor Furnished Equipment (CFE). Material includes production components to support deliveries, provisioning material, pre-modification effort, and any potential termination liability costs. Long lead items include, but not limited to, such items as the Main Rotor Drive Shaft, Composite Main Rotor Blade, Improved Drive System, and Composite Stabilator IAW Financial Management Regulation (FMR) 7000.14-R.
 The Economical Production Rate of 98 aircraft per year is the maximum capacity at Full Rate Production assuming a 1-8-5 shift. This requirement is driven primarily by the production rate associated with current fuselage tooling capabilities. In order to increase the 1-8-5 (single shift) production rate, additional tooling must be procured. The minimum rate of 48 aircraft per year (min-sustainment rate) is based upon combined Remanufacture and New Build quantities.
 FY18 OCO Procurement dollars in the amount of \$39.040 million will procure two (2) AH-64E Apache Remanufacture aircraft and associated GFE, training, and support to replace Kiowa Warrior theater of operations combat losses. The Kiowa Warrior is being divested in accordance with the Army's Aircraft Restructure Initiative. The Apache, teamed with UAS (Manned-Unmanned Teaming), will execute the Armed Reconnaissance mission previously performed by the now divested Kiowa Warrior.
 Note:
 FY2015: The gap in the delivery schedule for 13 aircraft is due to being procured with funds received on the FY2015 Omnibus reprogramming, received for execution in October 2015.
 Comments:
 "In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary		P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

UNCLASSIFIED

Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman	Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	176	64	52	48	2	50
Gross/Weapon System Cost (\$ in Millions)	3,688.412	1,300.799	1,091.054	911.136	39.040	950.176
Less PY Advance Procurement (\$ in Millions)	685.442	157.338	209.930	185.160	-	185.160
Net Procurement (P-1) (\$ in Millions)	3,002.970	1,143.461	881.124	725.976	39.040	765.016
Plus CY Advance Procurement (\$ in Millions)	842.776	209.930	185.160	170.910	-	170.910
Total Obligation Authority (\$ in Millions)	3,845.746	1,353.391	1,066.284	896.886	39.040	935.926

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	20,956.886	20,324.984	20,981.808	18,982.000	19,520.000	19,003.520

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
CFE ^(t)	17,859.619	176	3,143.293	13,759.469	64	880.606	14,307.577	52	743.994	12,303.438	48	590.565	13,609.500	2	27.219	12,355.680	50	617.784
GFE	969.977	176	170.716	5,058.063	64	323.716	4,930.500	52	256.386	4,734.438	48	227.253	4,734.500	2	9.469	4,734.440	50	236.722
Non-Recurring Costs	-	-	226.422	-	-	2.663	-	-	3.664	-	-	6.029	-	-	-	-	-	6.029
Support Equipment	-	-	22.307	-	-	16.202	-	-	32.006	-	-	30.839	-	-	-	-	-	30.839
Other Costs	-	-	97.355	-	-	58.016	-	-	43.146	-	-	43.718	-	-	1.822	-	-	45.540
Initial Spares	-	-	28.319	-	-	19.596	-	-	11.858	-	-	12.732	-	-	0.530	-	-	13.262
<i>Subtotal: Recurring Cost</i>	-	-	<i>3,688.412</i>	-	-	<i>1,300.799</i>	-	-	<i>1,091.054</i>	-	-	<i>911.136</i>	-	-	<i>39.040</i>	-	-	<i>950.176</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>3,688.412</i>	-	-	<i>1,300.799</i>	-	-	<i>1,091.054</i>	-	-	<i>911.136</i>	-	-	<i>39.040</i>	-	-	<i>950.176</i>
Gross/Weapon System Cost	20,956.886	176	3,688.412	20,324.984	64	1,300.799	20,981.808	52	1,091.054	18,982.000	48	911.136	19,520.000	2	39.040	19,003.520	50	950.176

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	64	52	48	2	50
Total Obligation Authority	1,353.391	1,066.284	896.886	39.040	935.926
Total: Secondary Distribution	64	52	48	2	50
Total Obligation Authority	1,353.391	1,066.284	896.886	39.040	935.926

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army							Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20			P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman				Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman				

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
CFE ^(†)		2014	The Boeing Company / Mesa, AZ	SS / FPIF	AMCOM	Mar 2014	Feb 2015	35	15,570.229	Y		Jul 2012
CFE ^(†)		2015	The Boeing Company / Mesa, AZ	SS / FPIF	AMCOM	Mar 2015	Feb 2016	53	14,679.510	Y		Aug 2014
CFE ^(†)		2016	The Boeing Company / Mesa, AZ	SS / FPIF	AMCOM	Mar 2016	Jan 2017	64	13,759.470	Y		Aug 2014
CFE ^(†)		2017	The Boeing Company / Mesa, AZ	SS / FFP	AMCOM	Mar 2017	May 2018	52	14,307.580	Y		Aug 2015
CFE ^(†)		2018	The Boeing Company / Mesa, AZ	SS / FFP	AMCOM	Mar 2017	Mar 2019	50	12,355.680	Y		Aug 2015

^(†) indicates the presence of a P-21

Remarks:

Major Contractor Furnished Equipment (CFE) cost drivers include, but not limited to, the Fuselage, Transmission, and Composite Main Rotor Blades. Major Government Furnished Equipment (GFE) includes engines, Embedded Global Positioning System Inertial Navigation Systems (EGIs), Radar Electronics Unit (REU), Modernized Target Acquisition Designation System (MTADS)/Pilot Night Vision System (PNVS) and Manned/Unmanned Teaming Extended Capability (MUMT-X). Other Cost includes Support Equipment, Peculiar Ground Support Equipment (PGSE), and Government Program Management Support.

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Exhibit P-21, Production Schedule: FY 2018 Army																									Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman										Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman											
Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C O #	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
CFE																															
Prior Years Deliveries: 88																															
1	2014	ARMY		35	0	35																								9	
1	2015	ARMY		53	0	53																								53	
1	2016	ARMY		64	0	64																								64	
1	2017	ARMY		52	0	52																								52	
1	2018	ARMY		50	0	50																								50	

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Exhibit P-21, Production Schedule: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman										Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman									

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					
CFE																																			
Prior Years Deliveries: 88																																			
1		2014	ARMY	35	26	9	3	3	3																									0	
1		2015	ARMY	53	0	53	-	-	-	-	3	4	4	3	2	3	2	2	2	3	4	3	-	-	-	-	-	-	-	-	-	-	18		
1		2016	ARMY	64	0	64																											26		
1		2017	ARMY	52	0	52																											52		
1		2018	ARMY	50	0	50																											50		

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Exhibit P-21, Production Schedule: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman										Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018														Fiscal Year 2019														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							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					

CFE																																					
Prior Years Deliveries: 88																																					
1	2014	ARMY	35	35	0																																0
1	2015	ARMY	53	35	18	-	-	-	-	1	6	6	5																								0
1	2016	ARMY	64	38	26	5	5	5	6	5																										0	
1	2017	ARMY	52	0	52	-	-	-	-	-	-	-	1	7	6	7	6	5	6	6	4	4														0	
1	2018	ARMY	50	0	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	4	3	3	4	4							26		
						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: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman										Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020														Fiscal Year 2021														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							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					

CFE																													
Prior Years Deliveries: 88																													
1	2014	ARMY	35	35	0																								0
1	2015	ARMY	53	53	0																								0
1	2016	ARMY	64	64	0																								0
1	2017	ARMY	52	52	0																								0
1	2018	ARMY	50	24	26	4	5	4	5	6	2																		0

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Exhibit P-21, Production Schedule: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman
		Item Number / Title [DODIC]: A05111 / AH-64 Apache Block IIIA Reman

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	The Boeing Company - Mesa, AZ	48	98	144	0	11	13	24	0	6	12	18

"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).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary	P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman
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Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	842.776	209.930	185.160	170.910	-	170.910	174.550	190.870	169.460	192.230	164.392	2,300.278
Net Procurement (P-1) (<i>\$ in Millions</i>)	842.776	209.930	185.160	170.910	-	170.910	174.550	190.870	169.460	192.230	164.392	2,300.278
Total Obligation Authority (<i>\$ in Millions</i>)	842.776	209.930	185.160	170.910	-	170.910	174.550	190.870	169.460	192.230	164.392	2,300.278

Description:

AH-64E Reman is a complete remanufacture using a new airframe and meets all the requirements for Army and Joint interoperability goals for the future and adds significant combat capability while addressing obsolescence issues, ensuring the aircraft remains a viable combat multiplier beyond its lifecycle. The Army's only heavy attack helicopter, the AH-64E is fully digital with the latest technologies, adding significant combat capability to the aircraft. The AH-64E Apache is implementing an incremental design and fielding strategy as noted in the approved Capability Production Document (CPD). AH-64E Capability Version 1 includes Improved Drive and Propulsion System, Composite Main Rotor Blades (CMRB), Unmanned Aircraft System (UAS) Level III-IV Control, Improved Communications Suite, Improved Electronics / Modular Open Systems Approach, and Radar Electronics Unit (REU). Capability Version 4 includes Link 16, Air to Air to Ground (AAG) Video Relay, System Level Embedded Diagnostics (SLED), and provisions for Removable Crashworthy External Fuel Systems (RCEFS). Capability Version 6 includes Fire Control Radar (FCR) enhancements, Maritime Targeting Mode, Link-16 and Soldier Radio Waveform (SRW), Image Blending, Multi-Mode Laser (MML), and Interactive Electronic Technical Manual (IETM) Upgrade. Production Lots 1-4 are Version 1 capable, Production Lots 5-7 are Version 4 capable, and Version 6 is planned for inclusion into the remaining Production Lots beginning with Production Lot 8. Upgrades are integrated as incremental block modifications. The program addresses operational shortfalls identified during real-world combat missions, meets Apache Capability Production Document (CPD) requirements for modernization, and necessary training, initial spares, and Peculiar Ground Support Equipment (PGSE). AH-64E aircraft entered the fleet in 2012

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05111 / AH-64 Apache Block IIIA Reman

Program Elements for Code B Items: N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	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-10	A05111 / AH-64 Apache Block IIIA Reman			176 / 842.776	64 / 209.930	52 / 185.160	48 / 170.910	2 / -	50 / 170.910
P-40	Total Gross/Weapon System Cost			176 / 842.776	64 / 209.930	52 / 185.160	48 / 170.910	2 / -	50 / 170.910

*Title represents the P-10 Title for Advance Procurement.

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

Justification:

FY18 Base procurement dollars supports Advance Procurement (AP), Full Rate Production (FRP) of AH-64E Apache Reman aircraft and associated support. This program was restructured in 2010 from the single AH-64E Apache (A05111) into two separate programs, AH-64E Apache Reman (A05111) and AH-64E Apache New Build (A05133).

The Apache Reman Program assumes a cost sharing with the New Build Program in accordance with the New Build APB.

Funding goes to the Active component.

The current AH-64E Apache Remanufacture Acquisition Program Baseline procurement objective is 634 aircraft.

The Apache Reman Program quantities and associated funding include a Multi-year contract starting in FY17- FY21 and assumes approval for a subsequent Multi-year contract in FY22 through the end of the program. The Apache Reman Program is planning continued production of aircraft through FY2025 to meet the Army Acquisition Objective (AAO).

Currently the total lead time (time from when first materials must be committed to aircraft delivery) is in excess of 24 months. The Apache Project Management Office (PMO) and Boeing are working to reduce all lead times to within the 24 month timeframe. The Cost Assessment and Program Evaluation (CAPE) Independent Cost Estimate (ICE) utilized 18% to 22% for Advance Procurement (AP). Each year's AP can be divided into 2 segments: 1) Government Furnished Equipment (GFE) such as engines, sensors and avionics and 2) Contractor Furnished Equipment (CFE). Material includes production components to support deliveries, provisioning material, pre-modification effort, and any potential termination liability costs. Long lead items include, but not limited to, such items as the Main Rotor Drive Shaft, Composite Main Rotor Blade, Improved Drive System, and Composite Stabilator IAW Financial Management Regulation (FMR) 7000.14-R.

The Economical Production Rate of 98 aircraft per year is the maximum capacity at Full Rate Production assuming a 1-8-5 shift. This requirement is driven primarily by the production rate associated with current fuselage tooling capabilities. In order to increase the 1-8-5 (single shift) production rate, additional tooling must be procured. The minimum rate of 48 aircraft per year (min-sustainment rate) is based upon combined Remanufacture and New Build quantities.

Comments:

"In accordance with Section 1815 of the FY 2008 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-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman			P-5 Number / Title: A05111 / AH-64 Apache Block IIIA Reman	
First System (2018) Award Date: July 2009		First System (2018) Completion Date: November 2011			Interval Between Systems: 1 Months	
AH-64 Apache Block IIIA Reman		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2016 <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <i>(Each)</i>
Quantity			176	64	52	50
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2016 <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>
Other						
CFE		6	535.539	132.255	116.685	107.673
GFE		6	307.237	77.675	68.475	63.237
<i>Total: Other</i>			<i>842.776</i>	<i>209.930</i>	<i>185.160</i>	<i>170.910</i>
Total Advance Procurement/Obligation Authority			842.776	209.930	185.160	170.910

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05111 / AH-64 Apache Block IIIA Reman				P-5 Number / Title: A05111 / AH-64 Apache Block IIIA Reman	
		FY 2018					
Cost Elements	QPA (Each)	Production Leadtime (Months)	Unit Cost (\$ K)	Contract Forecast Date	2018 Qty (Each)	For FY	Total Cost Request (\$ M)
Other							
CFE	26						107.673
GFE	26						63.237
<i>Total: Other</i>							<i>170.910</i>
Total Advance Procurement/Obligation Authority							170.910

Description:
 Currently the total lead time (time from when first materials must be committed to aircraft delivery) is in excess of 24 months. The Apache Project Management Office (PMO) and Boeing are working to reduce all lead times to within the 24 month timeframe. The Cost Assessment and Program Evaluation (CAPE) Independent Cost Estimate (ICE) utilized 18% to 22% for Advance Procurement (AP) for single year contracts. Each year's AP can be divided into 2 segments: 1) Government Furnished Equipment (GFE) such as engines, sensors and avionics and 2) Contractor Furnished Equipment (CFE). Material includes production components to support deliveries, provisioning material, pre-modification effort, and any potential termination liability costs. Long lead items include the Main Rotor Drive Shaft, Composite Main Rotor Blade, Improved Drive System, and Composite Stabilator.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05133 / AH-64 Apache Block IIIB New Build

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	17	-	20	13	-	13	12	5	5	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	538.785	-	707.800	374.100	-	374.100	370.500	160.300	203.900	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	71.585	-	-	0.000	-	0.000	71.900	58.600	18.000	-	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	467.200	-	707.800	374.100	-	374.100	298.600	101.700	185.900	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	71.585	-	-	71.900	-	71.900	58.600	18.000	-	-	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	538.785	-	707.800	446.000	-	446.000	357.200	119.700	185.900	-	Continuing	Continuing

(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>)	31,693.235	-	35,390.000	28,776.923	-	28,776.923	30,875.000	32,060.000	40,780.000	-	Continuing	Continuing

Description:

The AH-64E Apache New Build aircraft is the same configuration as the AH-64E Remanufacture aircraft and procured using the same contracts. While the AH-64E Remanufacture program inducts aging AH-64D aircraft into a remanufacture production line, the AH-64E New Build program assembles all new components resulting in completely new aircraft at the end of the production process. These aircraft are procured at a significantly higher cost because they include all new components. A new build Modernized Target Acquisition Designation Sight / Pilot Night Vision Sensor (MTADS/PNVS) system will be procured and provided with each aircraft. Other associated Government Furnished Equipment (GFE) such as the Fire Control Radar (FCR), Modernized Radar Frequency Interferometer (M-RFI), Radar Electronics Unit (REU), and Manned/Unmanned Teaming Extended Capability (MUMT-X) will be procured and provided in accordance with the basis of issue plan.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	20	13	-	13	12	5	5	-
Total Obligation Authority	-	707.800	446.000	-	446.000	357.200	119.700	185.900	-
Total:									
Secondary Distribution									
Quantity	-	20	13	-	13	12	5	5	-
Total Obligation Authority	-	707.800	446.000	-	446.000	357.200	119.700	185.900	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05133 / AH-64 Apache Block IIIB New Build

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05133 / AH-64 Apache Block IIIB New Build	P-5a, P-21			17 / 538.785	- / -	20 / 707.800	13 / 374.100	- / -	13 / 374.100
P-40	Total Gross/Weapon System Cost				17 / 538.785	- / -	20 / 707.800	13 / 374.100	- / -	13 / 374.100

*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:
 FY18 Base funding in the amount of \$446 million supports Advance Procurement (AP), Full Rate Production (FRP) of AH-64E Apache New Build aircraft and associated support. This program was restructured in 2010 from the single AH-64E Apache (A05111) into two separate programs, AH-64E Apache Reman (A05111) and AH-64E Apache New Build (A05133).

 FY17 Total Obligation Authority includes \$47.2 million for Advance Procurement. If this is not corrected this will affect the FY17 and FY18 Quantities. In addition, price actuals will result in program's ability to procure 22 aircraft vice 20 in FY17. As a result, the FY17 forecasted Gross Weapon System Unit Cost should be \$30,027.272.

 The current AH-64E New Build Acquisition Program Baseline (APB) procurement objective is 56 aircraft which includes an increase to the training base capacity and establishes a new heavy combat aviation brigade in the active component.

 Apache anticipates new AAO that will increase the New Build aircraft total quantity.

 Additionally, the New Build program prior year funding includes Congressionally appropriated Overseas Contingency Operations (OCO) funding to procure New Build aircraft to fill aircraft shortages due to combat attrition and training loss. OCO funding does not provide advance procurement for long lead items for these aircraft.

 All COMPO 1 Active.

UNCLASSIFIED

Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build	Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	17	-	20	13	-	13
Gross/Weapon System Cost (\$ in Millions)	538.785	-	707.800	374.100	-	374.100
Less PY Advance Procurement (\$ in Millions)	71.585	-	-	0.000	-	0.000
Net Procurement (P-1) (\$ in Millions)	467.200	-	707.800	374.100	-	374.100
Plus CY Advance Procurement (\$ in Millions)	71.585	-	-	71.900	-	71.900
Total Obligation Authority (\$ in Millions)	538.785	-	707.800	446.000	-	446.000

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	31,693.235	-	35,390.000	28,776.923	-	28,776.923

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
CFE ^(†)	24,000.294	17	408.005	-	-	-	18,333.600	20	366.672	15,276.692	13	198.597	-	-	-	15,276.692	13	198.597
GFE	4,906.294	17	83.407	-	-	-	12,405.150	20	248.103	11,498.308	13	149.478	-	-	-	11,498.308	13	149.478
Other Costs	-	-	47.373	-	-	-	-	-	28.640	-	-	21.701	-	-	-	-	-	21.701
Initial Spares	-	-	-	-	-	-	-	-	7.185	-	-	4.324	-	-	-	-	-	4.324
Advanced Procurement	-	-	-	-	-	-	-	-	47.200	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	538.785	-	-	-	-	-	697.800	-	-	374.100	-	-	-	-	-	374.100
Non Recurring Cost																		
Non-Recurring Cost	-	-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	538.785	-	-	-	-	-	707.800	-	-	374.100	-	-	-	-	-	374.100
Gross/Weapon System Cost	31,693.235	17	538.785	-	-	-	35,390.000	20	707.800	28,776.923	13	374.100	-	-	-	28,776.923	13	374.100

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	-	20	13	-	13
Total:	-	20	13	-	13

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build	Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Secondary Distribution	Total Obligation Authority	-	707.800	446.000	-	446.000

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20			P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build					Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
CFE ^(†)		2013	The Boeing Company / Mesa	SS / FPIF	AMCOM	Mar 2014	Sep 2014	13	16,375.300	Y		Jul 2012
CFE ^(†)		2014	The Boeing Company / Mesa	SS / FPIF	AMCOM	Sep 2014	Nov 2016	4	16,873.700	Y		Jul 2014
CFE ^(†)		2017	The Boeing Company / Mesa	SS / FFP	AMCOM	Sep 2017	Mar 2020	20	18,333.600	Y		Apr 2015
CFE ^(†)		2018	The Boeing Company / Mesa	SS / FFP	AMCOM	Jan 2018	Sep 2020	13	15,276.690	Y		Apr 2015

^(†) indicates the presence of a P-21

Remarks:

Major Contractor Furnished Equipment (CFE) cost drivers include the Fuselage, Transmission, and Composite Main Rotor Blades. Government Furnished Equipment (GFE) includes engines, Embedded Global Positioning System Inertial Navigation Systems (EGIs), Radar Electronics Unit (REU), Modernized Target Acquisition Designation System (MTADS)/Pilot Night Vision System (PNVS) and Manned/Unmanned Teaming Extended Capability (MUMT-X). Other Cost includes Support Equipment, Peculiar Ground Support (PGSE), and Government Program Management Support.

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Exhibit P-21, Production Schedule: FY 2018 Army																	Date: May 2017												
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build										Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build									

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				
CFE																																			
1		2013	ARMY	13	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1							0
1		2014	ARMY	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1					0
1		2017	ARMY	20	0	20																												A -	20
1		2018	ARMY	13	0	13																													13
							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: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build										Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build									

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2018														Fiscal Year 2019														B A L A N C E
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							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					
CFE																																			
1	2013	ARMY		13	13	0																							0						
1	2014	ARMY		4	4	0																							0						
1	2017	ARMY		20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20						
1	2018	ARMY		13	0	13				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13						
							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: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build										Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020														Fiscal Year 2021														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							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					
CFE																																			
1	2013	ARMY		13	13	0																							0						
1	2014	ARMY		4	4	0																							0						
1	2017	ARMY		20	0	20	-	-	-	-	-	3	3	1	2	2	2	2	1	1	2	1							0						
1	2018	ARMY		13	0	13	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	2	2	1	1	1	1	0						
							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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build
		Item Number / Title [DODIC]: A05133 / AH-64 Apache Block IIIB New Build

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	The Boeing Company - Mesa	48	98	144	1	11	32	43	1	6	32	38

Remarks:
 The Economical Production Rate of 98 aircraft per year is the maximum capacity at Full Rate Production assuming a 1-8-5 shift. This requirement is driven primarily by the production rate associated with current fuselage tooling capabilities. In order to increase the 1-8-5 (single shift) production rate, additional tooling must be procured. The minimum rate of 48 aircraft per year is based upon Combined Remanufacture and New Build quantities.

"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).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary	P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build
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Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	71.585	-	-	71.900	-	71.900	58.600	18.000	-	-	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	71.585	-	-	71.900	-	71.900	58.600	18.000	-	-	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	71.585	-	-	71.900	-	71.900	58.600	18.000	-	-	Continuing	Continuing

Description:

The AH-64E Apache New Build aircraft is the same configuration as the AH-64E Remanufacture aircraft and procured using the same contracts. While the AH-64E Remanufacture program inducts aging AH-64D aircraft into a remanufacture production line, the AH-64E New Build program assembles all new components resulting in completely new aircraft at the end of the production process. These aircraft are procured at a significantly higher cost because they include all new components. A new build Modernized Target Acquisition Designation Sight / Pilot Night Vision Sensor (MTADS/PNVS) system will be procured and provided with each aircraft. Other associated Government Furnished Equipment (GFE) such as the Fire Control Radar (FCR), Modernized Radar Frequency Interferometer (M-RFI), Radar Electronics Unit (REU), and Manned/Unmanned Teaming Extended Capability (MUMT-X) will be procured and provided in accordance with the basis of issue plan.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05133 / AH-64 Apache Block IIIB New Build

Program Elements for Code B Items: N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	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-10	A05133 / AH-64 Apache Block IIIB New Build			17 / 71.585	- / -	20 / -	13 / 71.900	- / -	13 / 71.900
P-40	Total Gross/Weapon System Cost			17 / 71.585	- / -	20 / -	13 / 71.900	- / -	13 / 71.900

*Title represents the P-10 Title for Advance Procurement.

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

Justification:
 The current AH-64E New Build Acquisition Program Baseline (APB) procurement objective is 56 aircraft which includes an increase to the training base capacity and establishes a new heavy combat aviation brigade in the active component.

Additionally, the New Build program prior year funding includes Congressionally appropriated Overseas Contingency Operations (OCO) funding to procure New Build aircraft to fill aircraft shortages due to combat attrition and training loss. OCO funding does not provide advance procurement for long lead items for these aircraft.

All COMPO 1 Active.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build			P-5 Number / Title: A05133 / AH-64 Apache Block IIIB New Build	
First System (2018) Award Date: July 2009		First System (2018) Completion Date: November 2011			Interval Between Systems: 1 Months	
AH-64 Apache Block IIIB New Build		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2016 <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <i>(Each)</i>
Quantity			17	-	20	13
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2016 <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>
Other						
AH-64E Apache New Build		12	71.585	-	0.000	71.900
<i>Total: Other</i>			71.585	-	0.000	71.900
Total Advance Procurement/Obligation Authority			71.585	-	-	71.900

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20		P-1 Line Item Number / Title: A05133 / AH-64 Apache Block IIIB New Build				P-5 Number / Title: A05133 / AH-64 Apache Block IIIB New Build	
		FY 2018					
Cost Elements	QPA <i>(Each)</i>	Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	Total Cost Request <i>(\$ M)</i>
Other							
AH-64E Apache New Build	-						71.900
<i>Total: Other</i>							71.900
Total Advance Procurement/Obligation Authority							71.900

Description:
FY17 Total Obligation Authority includes \$47.2 million for Advance Procurement. If this is not corrected this will affect the FY17 and FY18 Quantities.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP)

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	766	107	53	48	-	48	40	41	41	31	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	13,255.469	1,697.130	1,278.385	1,090.794	-	1,090.794	958.289	984.520	1,007.845	791.339	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	1,160.196	122.385	127.079	152.486	-	152.486	80.587	93.328	123.931	112.526	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	12,095.273	1,574.745	1,151.306	938.308	-	938.308	877.702	891.192	883.914	678.813	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	1,266.600	127.079	154.107	86.295	-	86.295	90.873	119.057	112.526	220.878	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	13,361.873	1,701.824	1,305.413	1,024.603	-	1,024.603	968.575	1,010.249	996.440	899.691	Continuing	Continuing

(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>)	17,304.790	15,861.028	24,120.472	22,724.875	-	22,724.875	23,957.225	24,012.683	24,581.585	25,527.065	Continuing	Continuing

Description:

The UH-60M Black Hawk Helicopter serves as the Army's utility helicopter for the near and midterm force and is in line with the Army's Modernization Strategy, the National Military Strategy, and the National Defense Strategy. The UH-60M Black Hawk is a digital networked platform with greater range and lift to support maneuver Commanders through air assault, general support command and control, and aeromedical evacuation. Full rate production for this new build helicopter began in 2007 and planned procurement for UH-60M is 1375 aircraft which meets the objective. The UH-60M Black Hawk, with the integrated Medical Evacuation (MEDEVAC) Mission Equipment Package (MEP) kit, provides day/night and adverse weather emergency evacuation of casualties. The integration of the MEDEVAC MEP into the UH-60M changes the nomenclature to HH-60M.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	82	45	24	-	24	31	29	16	6
Total Obligation Authority	1,303.574	1,161.807	532.015	-	532.015	828.811	686.129	429.855	150.343
ANG	25	8	24	-	24	9	12	25	10
Total Obligation Authority	398.250	143.606	492.588	-	492.588	139.764	324.120	566.585	274.808
AR	-	-	-	-	-	-	-	-	15
Total Obligation Authority	-	-	-	-	-	-	-	-	474.540
Total: Secondary Distribution	107	53	48	-	48	40	41	41	31
Total Obligation Authority	1,701.824	1,305.413	1,024.603	-	1,024.603	968.575	1,010.249	996.440	899.691

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05002 / UH-60 BLACK HAWK (MYP)	P-5a, P-21			766 / 13,255.469	107 / 1,697.130	53 / 1,278.385	48 / 1,090.794	- / -	48 / 1,090.794
P-40	Total Gross/Weapon System Cost				766 / 13,255.469	107 / 1,697.130	53 / 1,278.385	48 / 1,090.794	- / -	48 / 1,090.794

*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:

FY 2018 Base procurement dollars in the amount of \$1024.603 million supports procurement of 48 aircraft.

Note: The multi-year 8 contract versus 5 single year contracts yields a 10.9% cost avoidance (\$557.418 million) for FY 2012 through FY 2016. The multi-year 9 contract versus 5 single year contracts for FY 2017 through FY 2021 is projected to yield over 10% cost avoidance.

In accordance with section 1815 of the FY 2008 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.

Two additional aircraft in FY15 and three additional aircraft in FY16 were procured as a result of the Black Hawk Exchange and Sales Team (BEST) program. This program avoids demilitarization and divestment cost and applies proceeds from the divestiture of non-excess obsolete H-60 aircraft towards the procurement of replacement H-60M aircraft in accordance with 40 U.S.C. 503 and AR725-1 as approved by the Army Acquisition Executive (AAE).

FY17 funding includes \$15.100 Million for Aviation Mission Equipment (AME) that was put on the A05002 line in error. This funding will be adjusted onto the AME funding line for support of aviation A-PNT efforts on Army aircraft. This is detailed on the P-5 under study and analysis line.

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)	Item Number / Title [DODIC]: A05002 / UH-60 BLACK HAWK (MYP)

ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)		766	107	53	48	-	48
Gross/Weapon System Cost (<i>\$ in Millions</i>)		13,255.469	1,697.130	1,278.385	1,090.794	-	1,090.794
Less PY Advance Procurement (<i>\$ in Millions</i>)		1,160.196	122.385	127.079	152.486	-	152.486
Net Procurement (P-1) (<i>\$ in Millions</i>)		12,095.273	1,574.745	1,151.306	938.308	-	938.308
Plus CY Advance Procurement (<i>\$ in Millions</i>)		1,266.600	127.079	154.107	86.295	-	86.295
Total Obligation Authority (<i>\$ in Millions</i>)		13,361.873	1,701.824	1,305.413	1,024.603	-	1,024.603
<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>)		17,304.790	15,861.028	24,120.472	22,724.875	-	22,724.875

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Airframes/CFE ^(†)	11,724.419	766	8,980.905	11,136.047	107	1,191.557	16,403.792	53	869.401	15,476.708	48	742.882	-	-	-	15,476.708	48	742.882
Engines/Accessories	691.088	1,532	1,058.747	774.738	214	165.794	759.179	106	80.473	776.469	96	74.541	-	-	-	776.469	96	74.541
Avionics (GFE)	-	-	515.561	-	-	66.616	-	-	45.578	-	-	32.016	-	-	-	-	-	32.016
Other GFE	-	-	316.614	-	-	31.422	-	-	19.827	-	-	15.949	-	-	-	-	-	15.949
<i>Subtotal: Recurring Cost</i>	-	-	10,871.827	-	-	1,455.389	-	-	1,015.279	-	-	865.388	-	-	-	-	-	865.388
Non Recurring Cost																		
ECO (All FLYAWAY Components)	-	-	307.215	-	-	43.133	-	-	30.511	-	-	26.596	-	-	-	-	-	26.596
Other Costs (Mission Equipment)	-	-	629.171	-	-	53.799	-	-	41.062	-	-	34.791	-	-	-	-	-	34.791
Tooling Equipment	-	-	94.009	-	-	1.964	-	-	11.200	-	-	11.485	-	-	-	-	-	11.485
Other Nonrecurring Cost	-	-	82.363	-	-	1.696	-	-	0.903	-	-	0.834	-	-	-	-	-	0.834
<i>Subtotal: Non Recurring Cost</i>	-	-	1,112.758	-	-	100.592	-	-	83.676	-	-	73.706	-	-	-	-	-	73.706
<i>Subtotal: Flyaway Cost</i>	-	-	11,984.585	-	-	1,555.981	-	-	1,098.955	-	-	939.094	-	-	-	-	-	939.094
Support - Data Cost																		
Technical Publications	-	-	24.569	-	-	3.501	-	-	3.567	-	-	3.638	-	-	-	-	-	3.638
<i>Subtotal: Support - Data Cost</i>	-	-	24.569	-	-	3.501	-	-	3.567	-	-	3.638	-	-	-	-	-	3.638
Support - Fielding Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20						P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)						Item Number / Title [DODIC]: A05002 / UH-60 BLACK HAWK (MYP)					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Fielding	-	-	532.026	-	-	72.392	-	-	94.774	-	-	60.688	-	-	-	-	-	60.688
<i>Subtotal: Support - Fielding Cost</i>	-	-	532.026	-	-	72.392	-	-	94.774	-	-	60.688	-	-	-	-	-	60.688
Support - Program Management Cost																		
Government Management	-	-	336.798	-	-	43.057	-	-	43.031	-	-	43.884	-	-	-	-	-	43.884
<i>Subtotal: Support - Program Management Cost</i>	-	-	336.798	-	-	43.057	-	-	43.031	-	-	43.884	-	-	-	-	-	43.884
Support - Study & Analysis Cost																		
Study & Analysis	-	-	-	-	-	-	-	-	15.100	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Study & Analysis Cost</i>	-	-	-	-	-	-	-	-	15.100	-	-	-	-	-	-	-	-	-
Support - Training Cost																		
Equipment	-	-	377.491	-	-	22.199	-	-	22.958	-	-	43.490	-	-	-	-	-	43.490
<i>Subtotal: Support - Training Cost</i>	-	-	377.491	-	-	22.199	-	-	22.958	-	-	43.490	-	-	-	-	-	43.490
Gross/Weapon System Cost	17,304.790	766	13,255.469	15,861.028	107	1,697.130	24,120.472	53	1,278.385	22,724.875	48	1,090.794	-	-	-	22,724.875	48	1,090.794

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	82	45	24	-	24
	Total Obligation Authority	1,303.574	1,161.807	532.015	-	532.015
ANG	Quantity	25	8	24	-	24
	Total Obligation Authority	398.250	143.606	492.588	-	492.588
Total:	Quantity	107	53	48	-	48
Secondary Distribution	Total Obligation Authority	1,701.824	1,305.413	1,024.603	-	1,024.603

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)	Item Number / Title [DODIC]: A05002 / UH-60 BLACK HAWK (MYP)
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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
Airframes/CFE ^(†)		2015	Sikorsky Aircraft / Stratford CT	SS / FFP	AMCOM	Dec 2014	Jun 2015	87	11,792.023	Y		Jan 2010
Airframes/CFE ^(†)		2016	Sikorsky Aircraft / Stratford CT	SS / FFP	AMCOM	Dec 2015	Jul 2016	107	11,136.047	Y		Jan 2010
Airframes/CFE ^(†)		2017	Sikorsky Aircraft / Stratford CT	SS / FFP	AMCOM	Jun 2017	Oct 2017	53	16,403.790	Y		Apr 2014
Airframes/CFE ^(†)		2018	Sikorsky Aircraft / Stratford CT	SS / FFP	AMCOM	Dec 2017	Jul 2018	48	15,476.710	Y		Apr 2014

^(†) indicates the presence of a P-21

Remarks:
FY 2012 began the current five (5) year multi-year (MY8), multi-service contract for the H-60Ms. A new Multi-year (MY9) contract for the period FY17-21 is expected to be awarded in June 2017.

Delivery schedules appear to extend beyond the 12 month period for the following reasons:

Yearly procurements consist of UH-60M, HH-60M and supplemental aircraft. Each of the three are awarded on different contract line items. While each of these efforts deliver all of their aircraft within a 12 month span, they do not deliver within the same 12 month time period.

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP) **Item Number / Title [DODIC]:** A05002 / UH-60 BLACK HAWK (MYP)

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2015													Fiscal Year 2016													BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							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			
Airframes/CFE																																	
Prior Years Deliveries: 679																																	
1		2015	ARMY	87	0	87			A -	-	-	-	-	-	1	1	7	2	6	10		6	12	6	5	6	6	6	3	2	2	6	
1		2016	ARMY	107	0	107																A -	-	-	-	-	-	-	6	6	5	90	
1		2016	NAVY (‡)	29	0	29																A -	-	-	-	-	-	-	-	-	-	29	
1		2016	FMS (‡)	57	0	57																A -	-	-	-	-	-	-	3	3	2	49	
1		2016	Total	193	0	193																-	-	-	-	-	-	-	9	9	7	168	
1		2017	ARMY	53	0	53																										53	
1		2018	ARMY	48	0	48																										48	
									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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP) **Item Number / Title [DODIC]:** A05002 / UH-60 BLACK HAWK (MYP)

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2017														Fiscal Year 2018												BALANCE		
O C O #	M F R #	FY	SERVICE	PROC QTY	ACCEP T TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018												
							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			
Airframes/CFE																																	
Prior Years Deliveries: 679																																	
1	2015	ARMY	87	81	6	-	3	3																					0				
1	2016	ARMY	107	17	90	6	5	9	6	7	6	9	8	8	9	4	6	2	2	3	-								0				
1	2016	NAVY (†)	29	0	29	-	-	-	-	2	4	3	4	2	2	2	2	2	2	2									0				
1	2016	FMS (†)	57	8	49	2	2	2	3	4	2	1	1	2	2	6	7	4	2	9	-								0				
1	2016	Total	193	25	168	8	7	11	9	13	12	13	13	12	13	12	15	8	6	14	2	-	-	-	-	-	-	-	0				
1	2017	ARMY	53	0	53									A	-	-	-	-	2	3	3	4	6	6	6	6	6	5	5	1	0		
1	2018	ARMY	48	0	48																									39			

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP) **Item Number / Title [DODIC]:** A05002 / UH-60 BLACK HAWK (MYP)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020														
							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		
Airframes/CFE																																	
Prior Years Deliveries: 679																																	
1		2015	ARMY	87	87	0																											0
1		2016	ARMY	107	107	0																											0
1		2016	NAVY (‡)	29	29	0																											0
1		2016	FMS (‡)	57	57	0																											0
1		2016	Total	193	193	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1		2017	ARMY	53	53	0																											0
1		2018	ARMY	48	9	39	5	5	5	5	5	5	5	4																		0	
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)	Item Number / Title [DODIC]: A05002 / UH-60 BLACK HAWK (MYP)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Sikorsky Aircraft - Stratford CT	18	96	120	8	3	6	9	0	3	6	9

(‡) 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).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary	P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)
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Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,266.600	127.079	154.107	86.295	-	86.295	90.873	119.057	112.526	220.878	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,266.600	127.079	154.107	86.295	-	86.295	90.873	119.057	112.526	220.878	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	1,266.600	127.079	154.107	86.295	-	86.295	90.873	119.057	112.526	220.878	Continuing	Continuing

Description:

The Advance Procurement for the UH-60 Black Hawk contains funding for the airframe and engine contracts as well as funding for Government Furnished Equipment (GFE) to support the UH-60 aircraft and mission kit production. GFE (in addition to the engine) currently requiring advance procurement includes numerous communication, navigation, and Aircraft Survivability Equipment items procured by the Communications and Electronics Command (CECOM).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** AA0005 / UH-60 Blackhawk M Model (MYP)

Program Elements for Code B Items: N/A **Other Related Program Elements:** N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	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-10	A05002 / UH-60 BLACK HAWK (MYP)			766 / 1,266.600	107 / 127.079	53 / 154.107	48 / 86.295	- / -	48 / 86.295
P-40	Total Gross/Weapon System Cost			766 / 1,266.600	107 / 127.079	53 / 154.107	48 / 86.295	- / -	48 / 86.295

*Title represents the P-10 Title for Advance Procurement.

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

Justification:
 FY 2017 procures long lead items such as T700-GE-701D engines and avionics components for the FY 2017-FY 2021 multi-year contract.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Army					Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20			P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)			P-5 Number / Title: A05002 / UH-60 BLACK HAWK (MYP)	
First System (2018) Award Date: May 2005		First System (2018) Completion Date: June 2006			Interval Between Systems: 18 Months		
UH-60 BLACK HAWK (MYP)		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2016 <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <i>(Each)</i>	
Quantity			766	107	53	48	
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2016 <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>	
Other							
CFE Airframe		6	587.759	76.875	103.296	28.719	
Auxiliary Power Unit		3	32.198	2.560	2.589	2.934	
Engines		3	499.718	39.368	39.851	45.156	
EGI		3	77.279	6.354	6.427	7.283	
Heads Up Display AVS-7		3	25.036	1.922	1.944	2.203	
Hover Infrared Suppressor		1	28.959	-	0.000	-	
Miscellaneous		1	15.651	-	0.000	-	
Total: Other			1,266.600	127.079	154.107	86.295	
Total Advance Procurement/Obligation Authority			1,266.600	127.079	154.107	86.295	

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: AA0005 / UH-60 Blackhawk M Model (MYP)	P-5 Number / Title: A05002 / UH-60 BLACK HAWK (MYP)
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Cost Elements	QPA <i>(Each)</i>	FY 2018					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	
Other							
CFE Airframe	1						28.719
Auxiliary Power Unit	1						2.934
Engines	2						45.156
EGI	2						7.283
Heads Up Display AVS-7	1						2.203
Hover Infrared Suppressor	-						-
Miscellaneous	-						-
<i>Total: Other</i>							86.295
Total Advance Procurement/Obligation Authority							86.295

Description:
N/A

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05009 / UH-60 BLACK HAWK A AND L MODELS

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,020	36	38	36	-	36	25	37	43	53	-	1,288
Gross/Weapon System Cost (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	168.085	211.146	215.457	219.159	-	11,110.047
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	168.085	211.146	215.457	219.159	-	11,110.047
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	168.085	211.146	215.457	219.159	-	11,110.047

(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>)	9,919.676	1,540.028	1,215.079	2,125.444	-	2,125.444	6,723.400	5,706.649	5,010.628	4,135.075	-	8,625.813

Description:

UH-60 A and L Models include UH-60 A to L conversions in FY16 through FY18 and UH-60L Digital, now designated as UH-60V, production starting in FY18. The UH-60 BLACKHAWK helicopter is the Army's utility helicopter in the future force. It is a twin engine, single rotor, four bladed utility helicopter used for air assault, general support, command & control, and aero-medical evacuations (MEDEVAC). The UH-60 is joint force capable, providing 24 hour/day support including operations at night and in adverse weather conditions. The UH-60 is designed to carry a crew of four plus eleven combat equipped troops or an external load up to 9,000 pounds. The UH-60 BLACK HAWK was fielded in 1978 as a replacement for the UH-1. From 1978 to 1988, UH-60As were produced. In 1989 production of UH-60Ls with improved engines and drive train began. In 2007, full rate production of UH-60Ms began which provided a digital cockpit, digital Flight Management System (FMS), improved engine, and wide-cord main rotor blades. The UH-60V provides an integrated digital map, integrated performance planning, common functionality and commonality of training with UH-60M.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	8	-	-	-	-	11	15	12	-
	Total Obligation Authority	12.320	-	-	-	-	73.957	85.600	60.128	-
ANG	Quantity	28	38	36	-	36	14	22	31	45
	Total Obligation Authority	43.121	46.173	76.516	-	76.516	94.128	125.546	155.329	186.078
AR	Quantity	-	-	-	-	-	-	-	-	8
	Total Obligation Authority	-	-	-	-	-	-	-	-	33.081
Total:	Quantity	36	38	36	-	36	25	37	43	53
Secondary Distribution	Total Obligation Authority	55.441	46.173	76.516	-	76.516	168.085	211.146	215.457	219.159

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:**
A05009 / UH-60 BLACK HAWK A AND L MODELS

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A05009 / UH-60 A and L Models (A05009) (Operational)				1,020 / 10,118.070	36 / 55.441	38 / 46.173	36 / 76.516	- / -	36 / 76.516
P-40	Total Gross/Weapon System Cost				1,020 / 10,118.070	36 / 55.441	38 / 46.173	36 / 76.516	- / -	36 / 76.516

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A05009 / UH-60 A and L Models (A05009) (Operational)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				25 / 168.085	37 / 211.146	43 / 215.457	53 / 219.159	- / -	1,288 / 11,110.047

*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:
 FY18 base procurement dollars in the amount of \$76.516 million will procure 29 UH-60 A to L conversions and 7 UH-60Vs. The UH-60 A to L conversion program expands the current UH-60 A to A recapitalization/rebuild program to a UH-60 A to L recapitalization/rebuild program. Effective in FY16, all A to L conversions and UH-60V conversions will be procured under this line, A05009. Prior to FY16 the funding for UH-60 A to L conversions was utilized under Black Hawk Modifications line AA0492.

The actual quantity of FY17 A-L's is 37 (versus the 38 shown in the form) due to an increase in the unit cost for RECAP.

In accordance with Section 1815 of the FY 2008 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-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05009 / UH-60 BLACK HAWK A AND L MODELS	Modification Number / Title: A05009 / UH-60 A and L Models (A05009)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1,020	36	38	36	-	36	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	10,118.070	55.441	46.173	76.516	-	76.516	-	-	-	-	-	-

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	9,919.676	1,540.028	1,215.079	2,125.444	-	2,125.444	-	-	-	-	-	-

Description:

UH-60 A and L Models includes UH-60 A to L conversions and the UH-60L Digital conversions, now designated as UH-60V.

UH-60V aircraft cost includes all digital components and their associated cost, as well as Engineering Changes, Systems Engineering and Program Management, Trainers, Data and Fielding.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	8	-	-	-	-	-	-	-	-
	Total Obligation Authority	12.320	-	-	-	-	-	-	-	-
ANG	Quantity	28	38	36	-	36	-	-	-	-
	Total Obligation Authority	43.121	46.173	76.516	-	76.516	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	-	-	-	-	-	-	-
Total: Secondary Distribution	Quantity	36	38	36	-	36	-	-	-	-
	Total Obligation Authority	55.441	46.173	76.516	-	76.516	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army											Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20				P-1 Line Item Number / Title: A05009 / UH-60 BLACK HAWK A AND L MODELS							Modification Number / Title: A05009 / UH-60 A and L Models (A05009)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH-60 A and L				Modification Type: Operational				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 2:</i> UH-60A to UH-60L Conversions													
A Kits													
Recurring													
Other	1,020 / 10,118.070	36 / 55.441	38 / 46.173	29 / 37.763	0 / 0.000	29 / 37.763	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 10,118.070	- / 55.441	- / 46.173	- / 37.763	- / 0.000	- / 37.763	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: UH-60A to UH-60L Conversions</i>	1,020 / 10,118.070	36 / 55.441	38 / 46.173	29 / 37.763	0 / 0.000	29 / 37.763	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Modification Item 2 of 2:</i> UH-60V													
A Kits													
Recurring													
Other	0 / 0.000	0 / 0.000	0 / 0.000	7 / 33.736	0 / 0.000	7 / 33.736	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 33.736	- / 0.000	- / 33.736	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: UH-60V</i>	0 / 0.000	0 / 0.000	0 / 0.000	7 / 33.736	0 / 0.000	7 / 33.736	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	1,020 / 10,118.070	36 / 55.441	38 / 46.173	36 / 71.499	0 / 0.000	36 / 71.499	- / -	- / -	- / -	- / -	- / -	- / -	
Installation													
<i>Modification Item 2 of 2:</i> UH-60V													
Other	0 / 0.000	0 / 0.000	0 / 0.000	7 / 5.017	- / -	7 / 5.017	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Installation</i>	0 / 0.000	0 / 0.000	0 / 0.000	7 / 5.017	- / -	7 / 5.017	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	10,118.070	55.441	46.173	76.516	-	76.516	-	-	-	-	-	-	

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05009 / UH-60 BLACK HAWK A AND L MODELS	Modification Number / Title: A05009 / UH-60 A and L Models (A05009)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 2: UH-60A to UH-60L Conversions

Manufacturer Information

Manufacturer Name: Corpus Christi Army Depot	Manufacturer Location: Corpus Christi Army Depot
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	9	9	9	9	10	10	9	9	8	8	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	9	9	9	9	10	10	9	9	8	8	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05009 / UH-60 BLACK HAWK A AND L MODELS	Modification Number / Title: A05009 / UH-60 A and L Models (A05009)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 2: UH-60V

Manufacturer Information

Manufacturer Name: Corpus Christi Army Depot	Manufacturer Location: Corpus Christi Army Depot
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Depot

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	7 / 5.017	- / -	7 / 5.017	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	7 / 5.017	- / -	7 / 5.017	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	3	4	6	6	6	7	9	9	9	10	10	11	11	11	13	13	13	14	590	755
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	6	6	6	7	9	9	9	10	10	11	11	11	643	755

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	282	39	22	6	-	6	6	8	13	13	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7,887.028	1,106.948	655.601	211.283	-	211.283	170.348	215.152	410.953	404.367	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	438.000	102.361	99.344	8.707	-	8.707	17.820	24.235	43.532	-	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	7,449.028	1,004.587	556.257	202.576	-	202.576	152.528	190.917	367.421	404.367	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	540.361	99.344	8.707	17.820	-	17.820	24.235	43.532	37.792	-	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	7,989.389	1,103.931	564.964	220.396	-	220.396	176.763	234.449	405.213	404.367	Continuing	Continuing

(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>)	27,968.184	28,383.282	29,800.046	35,213.833	-	35,213.833	28,391.333	26,894.000	31,611.769	31,105.154	Continuing	Continuing

Description:

The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy-lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the CH-47F Improved Cargo helicopter is an essential component of the Army Future Force. The mission of the CH-47F is to transport troops (including air assault), supplies, weapons, and other cargo in general support operations. The CH-47F is vital to Overseas Contingency Operations and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief, and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The CH-47F is expected to remain the Army's heavy lift helicopter until at least the 2038 timeframe. The CH-47F ReNew Program will provide a more reliable, less costly to operate aircraft compatible with Joint digital connectivity requirements in the Future Force. Key product improvements integrate a new-machined airframe, a performance capability, Common Avionics Architecture System, Air Warrior, Common Missile Warning System, enhanced air transportability, Digital Advance Flight Control System (DAFCS) and an Extended Range Fuel System II for self-deployment missions. The CH-47F program extends the Army's Chinook fleets useful life 20 years incorporating reliability and maintainability improvements including airframe tuning for vibration reduction, corrosion protection, digital source collectors, Transportable Flight Proficiency Simulators, Cargo Floor Handling System, Ballistic Protection System, Transformation Sets, Kits and Outfits, Aviation Training Devices, M240 Window/Door Gun Mounts and an automated maintenance program with a 400-hour phase interval. The ReNew program rebuilds and replaces CH-47Ds and 61 Special Operations Aviation MH-47s to the CH-47F/MH-47G configuration. The New Build program procures all CH-47F New Build aircraft and 8 Special Operations Aviation MH-47G New Build aircraft. The CH-47F PM is fielding and training Combat Aviation Brigades (CABs), NG/USAR units using a New Equipment Training team. The CH-47F program is currently in the last year of a second five-year Multiyear (MY) contract (FY13 to FY17) that was awarded on 10 Jun 2013.

Given the need to maintain the Chinook's fleet's relevance through 2060 as the Army's only heavy-lift cargo helicopter, the CH-47 Block II program will insert incremental technology upgrades into the Chinook fleet to maintain the platform's relevance and affordability over time while meeting Warfighter requirements. The 11 September 2015 Program Delegation Decisions Acquisition Decision Memorandum (ADM) designated the CH-47F Block II as an Acquisition Category (ACAT) 1C program with the Milestone Decision Authority (MDA) delegated to the Secretary of the Army. The EMD Phase will begin after a 2017 Milestone (MS) B decision projected in 3 quarter fiscal year 2017, and the first production aircraft are planned for 2021.

An urgent need exists to accomplish near-term (FY2018) recapitalization (RECAP) of the MH-47G legacy sheet metal airframes which will have ripple effects to the entire Chinook fleet if not addressed. The MH-47G average fleet age is approaching 45 years with 23 of 61 MH-47G airframes descending from the original CH-47A models. PM Cargo provides a portion of the Special Operations Aviation's funding to RECAP 61 MH-47Gs beginning in FY18 with 4 aircraft. The MH-47G program, while complementary to the Block II program, is a separately managed Technology Applications Project Office (TAPO) ARSOAC program with a stand-alone Acquisition Strategy.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter

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

Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	39	22	4	-	4	6	8	13	13
	Total Obligation Authority	1,103.931	564.964	88.560	-	88.560	176.763	234.449	405.213	404.367
AR	Quantity	-	-	2	-	2	-	-	-	-
	Total Obligation Authority	-	-	131.836	-	131.836	-	-	-	-
Total:	Quantity	39	22	6	-	6	6	8	13	13
Secondary Distribution	Total Obligation Authority	1,103.931	564.964	220.396	-	220.396	176.763	234.449	405.213	404.367

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05008 / CH-47 NEW BUILD	P-5a, P-21			177 / 4,844.721	12 / 357.820	- / -	2 / 131.836	- / -	2 / 131.836
P-3a	A05105 / CH-47 SLEP (.)				105 / 3,042.307	27 / 749.128	22 / 655.601	4 / 79.447	- / -	4 / 79.447
P-40	Total Gross/Weapon System Cost				282 / 7,887.028	39 / 1,106.948	22 / 655.601	6 / 211.283	- / -	6 / 211.283

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A05008 / CH-47 NEW BUILD	P-5a, P-21			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	A05105 / CH-47 SLEP (.)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				6 / 170.348	8 / 215.152	13 / 410.953	13 / 404.367	Continuing	Continuing

*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:
 FY18 Base procurement dollars in the amount of \$220.396 million will procure common funding portion for 4 MH-47G ReNew aircraft and 2 CH-47F New Build aircraft.

In accordance with section 1815 of the FY 2008 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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Item Number / Title [DODIC]: A05008 / CH-47 NEW BUILD

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	177	12	-	2	-	2
Gross/Weapon System Cost (\$ in Millions)	4,844.721	357.820	-	131.836	-	131.836
Less PY Advance Procurement (\$ in Millions)	32.759	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4,811.962	357.820	-	131.836	-	131.836
Plus CY Advance Procurement (\$ in Millions)	32.759	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4,844.721	357.820	-	131.836	-	131.836

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	27,371.305	29,818.333	-	65,918.000	-	65,918.000

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Airframes/CFE ^(†)	17,889.232	177	3,166.394	21,982.583	12	263.791	-	-	-	35,901.000	2	71.802	-	-	-	35,901.000	2	71.802
Engine/Accessories	885.550	338	299.316	1,057.083	24	25.370	-	-	-	1,726.500	4	6.906	-	-	-	1,726.500	4	6.906
CFE Avionics	-	-	185.910	-	-	16.506	-	-	-	-	-	4.492	-	-	-	-	-	4.492
GFE	-	-	309.867	-	-	37.377	-	-	-	-	-	7.200	-	-	-	-	-	7.200
ECO (Flyaway)	-	-	73.082	-	-	-	-	-	-	-	-	2.904	-	-	-	-	-	2.904
Nonrecurring/SEPM/FDT	-	-	133.107	-	-	7.491	-	-	-	-	-	23.500	-	-	-	-	-	23.500
SOA Aircraft	-	-	161.295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PSE	-	-	20.220	-	-	0.518	-	-	-	-	-	0.900	-	-	-	-	-	0.900
Peculiar Training Equipment	-	-	35.284	-	-	4.109	-	-	-	-	-	-	-	-	-	-	-	-
Publications/Tech Data	-	-	8.203	-	-	0.202	-	-	-	-	-	0.398	-	-	-	-	-	0.398
ECO (Support Items)	-	-	3.451	-	-	0.112	-	-	-	-	-	0.585	-	-	-	-	-	0.585
NET	-	-	86.306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other support costs	-	-	72.219	-	-	-	-	-	-	-	-	12.136	-	-	-	-	-	12.136
Post Production Modifications	-	-	265.575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Initial Spares	-	-	24.492	-	-	2.344	-	-	-	-	-	1.013	-	-	-	-	-	1.013
<i>Subtotal: Recurring Cost</i>	-	-	4,844.721	-	-	357.820	-	-	-	-	-	131.836	-	-	-	-	-	131.836
<i>Subtotal: Flyaway Cost</i>	-	-	4,844.721	-	-	357.820	-	-	-	-	-	131.836	-	-	-	-	-	131.836

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20						P-1 Line Item Number / Title: A05101 / CH-47 Helicopter						Item Number / Title [DODIC]: A05008 / CH-47 NEW BUILD					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Gross/Weapon System Cost	27,371.305	177	4,844.721	29,818.333	12	357.820	-	-	-	65,918.000	2	131.836	-	-	-	65,918.000	2	131.836

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	12	-	-	-	-
	Total Obligation Authority	357.820	-	-	-	-
AR	Quantity	-	-	2	-	2
	Total Obligation Authority	-	-	131.836	-	131.836
Total:	Quantity	12	-	2	-	2
Secondary Distribution	Total Obligation Authority	357.820	-	131.836	-	131.836

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Item Number / Title [DODIC]: A05008 / CH-47 NEW BUILD
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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
Airframes/CFE ^(†)		2012	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Jan 2012	Oct 2014	25	16,080.000	N		Apr 2007
Airframes/CFE ^(†)		2013	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Jun 2013	Mar 2015	17	9,133.710	N		Jul 2011
Airframes/CFE ^(†)		2014	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Dec 2013	Mar 2016	17	9,133.710	N		Jul 2011
Airframes/CFE ^(†)		2015	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Mar 2015	Mar 2017	6	22,098.333	N		Jul 2011
Airframes/CFE ^(†)		2016	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Mar 2016	Mar 2018	12	21,982.583	N		Jul 2011
Airframes/CFE ^(†)		2018	The Boeing Company / Ridley Park, PA	SS / FFP	AMCOM	Dec 2017	Mar 2020	2	35,901.000	N		Jul 2011

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter **Item Number / Title [DODIC]:** A05008 / CH-47 NEW BUILD

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2012													Fiscal Year 2013												B A L A N C E		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	Calendar Year 2012													Calendar Year 2013												
							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	
Airframes/CFE																																
Prior Years Deliveries: 112																																
	1	2012	ARMY	25	0	25					A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25			
	1	2013	ARMY	17	0	17																					A	-	-	-	-	17
	1	2013	FMS (†)	14	0	14																					A	-	-	-	-	14
	1	2013	Total	31	0	31																					-	-	-	-	31	
	1	2014	ARMY	17	0	17																									17	
	1	2015	ARMY	6	0	6																									6	
	1	2015	FMS (†)	5	0	5																									5	
	1	2015	Total	11	0	11																									11	
	1	2016	ARMY	12	0	12																									12	
	1	2016	FMS (†)	12	0	12																									12	
	1	2016	Total	24	0	24																									24	
	1	2018	ARMY	2	0	2																									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		

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter **Item Number / Title [DODIC]:** A05008 / CH-47 NEW BUILD

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			
Airframes/CFE																																	
Prior Years Deliveries: 112																																	
1		2012	ARMY	25	0	25	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	3	0	
1		2013	ARMY	17	0	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	3	2	
1		2013	FMS (†)	14	0	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	
1		2013	Total	31	0	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	3	16	
1		2014	ARMY	17	0	17			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
1		2015	ARMY	6	0	6																			A -	-	-	-	-	-	-	6	
1		2015	FMS (†)	5	0	5																				A -	-	-	-	-	-	-	5
1		2015	Total	11	0	11																										11	
1		2016	ARMY	12	0	12																										12	
1		2016	FMS (†)	12	0	12																										12	
1		2016	Total	24	0	24																										24	
1		2018	ARMY	2	0	2																										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			

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter **Item Number / Title [DODIC]:** A05008 / CH-47 NEW BUILD

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016														Fiscal Year 2017														BALANCE	
O C O #	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					
Airframes/CFE																																			
Prior Years Deliveries: 112																																			
1	2012	ARMY	25	25	0																													0	
1	2013	ARMY	17	15	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1	2013	FMS (†)	14	0	14	-	-	-	-	-	1	1	1	2	1	2	1	1	1	1	1	1	1										0		
1	2013	Total	31	15	16	2	-	-	-	-	1	1	1	2	1	2	1	1	1	1	1	1										0			
1	2014	ARMY	17	0	17	-	-	-	-	-	2	1	2	1	2	1	2	2	1	1	1	1											0		
1	2015	ARMY	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	-	-	-	0			
1	2015	FMS (†)	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4			
1	2015	Total	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	4			
1	2016	ARMY	12	0	12						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12			
1	2016	FMS (†)	12	0	12						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12			
1	2016	Total	24	0	24						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24			
1	2018	ARMY	2	0	2																												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	

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Exhibit P-21, Production Schedule: FY 2018 Army															Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20										P-1 Line Item Number / Title: A05101 / CH-47 Helicopter										Item Number / Title [DODIC]: A05008 / CH-47 NEW BUILD									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018														Fiscal Year 2019														BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019																
							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							
Airframes/CFE																																					
Prior Years Deliveries: 112																																					
1	2012	ARMY	25	25	0																																0
1	2013	ARMY	17	17	0																																0
1	2013	FMS ^(*)	14	14	0																																0
1	2013 Total		31	31	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2014	ARMY	17	17	0																																0
1	2015	ARMY	6	6	0	-	-	-	-																												0
1	2015	FMS ^(*)	5	1	4	1	1	1	1																												0
1	2015 Total		11	7	4	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
1	2016	ARMY	12	0	12	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
1	2016	FMS ^(*)	12	0	12	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
1	2016 Total		24	0	24	-	-	-	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	
1	2018	ARMY	2	0	2																																2

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20 **P-1 Line Item Number / Title:** A05101 / CH-47 Helicopter **Item Number / Title [DODIC]:** A05008 / CH-47 NEW BUILD

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							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
Airframes/CFE																															
Prior Years Deliveries: 112																															
1		2012	ARMY	25	25	0																							0		
1		2013	ARMY	17	17	0																							0		
1		2013	FMS (†)	14	14	0																							0		
1		2013	Total	31	31	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1		2014	ARMY	17	17	0																							0		
1		2015	ARMY	6	6	0																							0		
1		2015	FMS (†)	5	5	0																							0		
1		2015	Total	11	11	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1		2016	ARMY	12	12	0																							0		
1		2016	FMS (†)	12	12	0																							0		
1		2016	Total	24	24	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
1		2018	ARMY	2	0	2																							0		
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Item Number / Title [DODIC]: A05008 / CH-47 NEW BUILD
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	The Boeing Company - Ridley Park, PA	24	24	72	5	5	28	33	0	0	0	0

(‡) 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).

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Modification Number / Title: A05105 / CH-47 SLEP

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	105	27	22	4	-	4	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3,042.307	749.128	655.601	79.447	-	79.447	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	405.241	102.361	99.344	8.707	-	8.707	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,637.066	646.767	556.257	70.740	-	70.740	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	507.602	99.344	8.707	17.820	-	17.820	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3,144.668	746.111	564.964	88.560	-	88.560	-	-	-	-	-	-

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	28,974.352	27,745.482	29,800.046	19,861.750	-	19,861.750	-	-	-	-	-	-

Description:

The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy lift transport helicopter with a useful load of up to 25,000 pounds. The ReNew program will provide a more reliable, less costly to operate aircraft compatible with Joint digital connectivity requirements in the Future Force. The ReNew Program produces an identical aircraft as the CH-47F New Build program with the exception of dynamic components including engine, transmission and drive train. During production, the aircraft receives a new airframe, cockpit, wiring and plumbing. The majority of the airframe build is exactly the same as a new build. The major differences are the RECAP of Dynamic Components, Fuel Pods, and some cockpit components.

Given the need to maintain the Chinook's fleet's relevance through 2060 as the Army's only heavy-lift cargo helicopter, the CH-47 Block II program will insert incremental technology upgrades into the Chinook fleet to maintain the platform's relevance and affordability over time while meeting Warfighter requirements. The 11 September 2015 Program Delegation Decisions Acquisition Decision Memorandum (ADM) designated the CH-47F Block II as an Acquisition Category (ACAT) 1C program with the Milestone Decision Authority (MDA) delegated to the Secretary of the Army. The EMD Phase will begin after a 2017 Milestone (MS) B decision projected in March 2017, and the first production aircraft are planned for 2021.

An urgent need exists to accomplish near-term (FY2018) recapitalization (RECAP) of the MH-47G legacy sheet metal airframes which will have ripple effects to the entire Chinook fleet if not addressed. The MH-47G average fleet age is approaching 45 years with 23 of 61 MH-47G airframes descending from the original CH-47A models. PM Cargo provides a portion of the Special Operations Aviation's funding to RECAP 61 MH-47Gs beginning in FY18 with 4 aircraft. The MH-47G program, while complementary to the Block II program, is a separately managed Technology Applications Project Office (TAPO) ARSOAC program with a stand-alone Acquisition Strategy.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	27	22	4	-	4	-	-	-	-
	Total Obligation Authority	746.111	564.964	88.560	-	88.560	-	-	-	-
Total: Secondary Distribution	Quantity	27	22	4	-	4	-	-	-	-
	Total Obligation Authority	746.111	564.964	88.560	-	88.560	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20					P-1 Line Item Number / Title: A05101 / CH-47 Helicopter					Modification Number / Title: A05105 / CH-47 SLEP			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-47				Modification Type: .				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 3: CH-47 Block I to Block II													
A Kits													
Recurring													
Other Flyaway	0 / 0.000	0 / 0.000	0 / 0.000	0 / 7.447	0 / 0.000	0 / 7.447	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 7.447	- / 0.000	- / 7.447	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: CH-47 Block I to Block II	0 / 0.000	0 / 0.000	0 / 0.000	0 / 7.447	0 / 0.000	0 / 7.447	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 2 of 3: MH-47G Block I to Block II Common Funding (SOA)													
A Kits													
Recurring													
MH-47G Blk I to Blk II Crm Funding (SOA)	0 / 0.000	0 / 0.000	0 / 0.000	4 / 72.000	- / -	4 / 72.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 72.000	- / -	- / 72.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: MH-47G Block I to Block II Common Funding (SOA)	0 / 0.000	0 / 0.000	0 / 0.000	4 / 72.000	- / -	4 / 72.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 3 of 3: CH-47 D to F Conversion													
A Kits													
Recurring													
Recurring Production (Mods)	105 / 2,483.966	27 / 671.169	22 / 569.433	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Other Flyaway	0 / 285.242	0 / 53.604	0 / 51.799	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Other Support	0 / 154.904	0 / 13.995	0 / 20.389	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Training	0 / 63.124	0 / 9.246	0 / 13.980	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Support Equipment	0 / 25.271	0 / 1.114	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Post Production (Mods)	0 / 29.800	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 3,042.307	- / 749.128	- / 655.601	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: CH-47 D to F Conversion	105 / 3,042.307	27 / 749.128	22 / 655.601	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Procurement, All Modification Items	105 / 3,042.307	27 / 749.128	22 / 655.601	4 / 79.447	0 / 0.000	4 / 79.447	- / -	- / -	- / -	- / -	- / -	- / -	
Installation													
Modification Item 2 of 3: MH-47G Block I to Block II Common Funding (SOA)													
	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 3 of 3: CH-47 D to F Conversion													
	105 / 0.000	27 / 0.000	22 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Installation	105 / 0.000	27 / 0.000	22 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	

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Exhibit P-3a, Individual Modification: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Modification Number / Title: A05105 / CH-47 SLEP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: CH-47	Modification Type: .	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Total												
Total Cost (Procurement + Support + Installation)	3,042.307	749.128	655.601	79.447	-	79.447	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Modification Number / Title: A05105 / CH-47 SLEP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 3: CH-47 Block I to Block II

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Contractor

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	465	470
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	470	470

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Modification Number / Title: A05105 / CH-47 SLEP

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 3: MH-47G Block I to Block II Common Funding (SOA)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Jan 2018				
Delivery Dates			Jan 2019				

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	4	3	3	3	29	69
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	42	69

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	Modification Number / Title: A05105 / CH-47 SLEP

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 3: CH-47 D to F Conversion

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ripley, PA
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Jan 2016	Jan 2017					
Delivery Dates	Jan 2017	Jan 2018					

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	105 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	27 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	22 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	105 / 0.000	27 / 0.000	22 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	98	7	6	7	7	7	6	7	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	71	6	7	7	7	7	6	7	7	7	6	7	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter
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Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	540.361	99.344	8.707	17.820	-	17.820	24.235	43.532	37.792	-	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	540.361	99.344	8.707	17.820	-	17.820	24.235	43.532	37.792	-	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	540.361	99.344	8.707	17.820	-	17.820	24.235	43.532	37.792	-	Continuing	Continuing

Description:

The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy-lift transport helicopter with a useful load of up to 25,000 pounds. The CH-47F Improved Cargo Helicopter is an essential component of the Army Future Force. The CH-47F program fills the Army's Aviation Transformation Chinook requirement. Key product improvements integrate the CH-47F Common Avionics Architecture System (CAAS) digital cockpit which meets the Net-Ready Key Performance Parameters (KPPs) and also includes a digital data bus that permits installation of enhanced communication and navigation equipment for improved situational awareness, mission performance, and survivability. The new digital cockpit incorporates all new airframe components and modifies the aircraft to reduce vibration. New airframe structural components and modifications will reduce harmful vibrations, improving operation and support (O&S) efficiency and crew endurance. Other airframe modifications reduce by 60 percent the time required for aircraft tear down and build-up after C-5/C-17 deployment. These modifications significantly enhance the Chinook's strategic deployment capability.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 01: Aircraft / BSA 20: Rotary		P-1 Line Item Number / Title: A05101 / CH-47 Helicopter
Program Elements for Code B Items: N/A		Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule				Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	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-10	A05105 / CH-47 SLEP			105 / 507.602	27 / 99.344	22 / 8.707	4 / 17.820	- / -	4 / 17.820
P-40	Total Gross/Weapon System Cost			282 / 540.361	39 / 99.344	22 / 8.707	6 / 17.820	- / -	6 / 17.820

Exhibits Schedule				FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	ID CD	MDAP/MAIS Code	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-10	A05105 / CH-47 SLEP			- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			6 / 24.235	8 / 43.532	13 / 37.792	13 / -	Continuing	Continuing

*Title represents the P-10 Title for Advance Procurement.

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

Justification:
 FY 18 Advanced procurement dollars in the amount of \$17.820 million will procure MH-47G common portion of the avionics and airframe advance procurement.

In accordance with section 1815 of the FY 2008 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-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	P-3a Number / Title: A05105 / CH-47 SLEP
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First System (2018) Award Date: December 2003	First System (2018) Completion Date: December 2006	Interval Between Systems: 2 Months
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	Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2016 <i>(Each)</i>	FY 2017 <i>(Each)</i>	FY 2018 <i>(Each)</i>	FY 2019 <i>(Each)</i>	FY 2020 <i>(Each)</i>	FY 2021 <i>(Each)</i>	FY 2022 <i>(Each)</i>	To Complete <i>(Each)</i>	Total <i>(Each)</i>
CH-47 SLEP											
Quantity		105	27	22	4	-	-	-	-	-	-

	When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2016 <i>(\$ M)</i>	FY 2017 <i>(\$ M)</i>	FY 2018 <i>(\$ M)</i>	FY 2019 <i>(\$ M)</i>	FY 2020 <i>(\$ M)</i>	FY 2021 <i>(\$ M)</i>	FY 2022 <i>(\$ M)</i>	To Complete <i>(\$ M)</i>	Total <i>(\$ M)</i>
Other											
Avionics	16	187.005	39.722	3.483	7.128	-	-	-	-	-	-
Airframe	14	320.597	59.622	5.224	10.692	-	-	-	-	-	-
<i>Total: Other</i>		<i>507.602</i>	<i>99.344</i>	<i>8.707</i>	<i>17.820</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Total Advance Procurement/Obligation Authority		507.602	99.344	8.707	17.820	-	-	-	-	-	-

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 01 / 20	P-1 Line Item Number / Title: A05101 / CH-47 Helicopter	P-3a Number / Title: A05105 / CH-47 SLEP
----------------------------------------------------------------------------------	-------------------------------------------------------------------	----------------------------------------------------

Cost Elements	QPA <i>(Each)</i>	FY 2018					Total Cost Request <i>(\$ M)</i>
		Production Leadtime <i>(Months)</i>	Unit Cost <i>(\$ K)</i>	Contract Forecast Date	2018 Qty <i>(Each)</i>	For FY	
Other							
Avionics	1						7.128
Airframe	1						10.692
<i>Total: Other</i>							17.820
Total Advance Procurement/Obligation Authority							17.820

Description:
N/A

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	2	36	43	7	33	40	-	-	-	-	-	121
Gross/Weapon System Cost (<i>\$ in Millions</i>)	25.313	148.353	91.735	5.910	41.400	47.310	3.397	3.460	3.406	3.474	-	326.448
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	25.313	148.353	91.735	5.910	41.400	47.310	3.397	3.460	3.406	3.474	-	326.448
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	25.313	148.353	91.735	5.910	41.400	47.310	3.397	3.460	3.406	3.474	-	326.448

(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>)	12,656.500	4,120.917	2,133.372	844.286	1,254.545	1,182.750	-	-	-	-	-	2,697.917

Description:

Funds in this program were realigned beginning in FY2015 from the shared MQ-1 Payload-UAS funding line (SSN A00020) for more efficient, effective program management. The funds were realigned into a new shared parent SSN, MQ-1 Payloads (MIP) (SSN A01001), which includes the MQ-1 sensor payloads: Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI) (SSN A01003), Signal Intelligence (SIGINT) (SSN A01004), and Common Sensor Payload Full Motion Video (CSP FMV) (SSN A01005).

MQ-1 Payload (MIP) (A01001) budget line is shared between multiple Payload programs and two Program Managers. These Payload programs support the Army's transformation by procuring Reconnaissance, Surveillance and Target Acquisition (RSTA) and Intelligence, Surveillance and Reconnaissance (ISR) payload systems for Brigade Combat Teams, Divisions, and Corps Unmanned Aircraft Systems (UAS). This is in accordance with Headquarters Department of the Army (HQDA) and Training and Doctrine Command (TRADOC) UAS priorities. Common Sensor Payload (CSP), Small Tactical Radar - Lightweight (STARLite), and Tactical Signals Intelligence (SIGINT) Payload (TSP) are principal payloads for the Gray Eagle UAS. The Army Acquisition Objective (AAO) for STARLite and CSP is equivalent to aircraft/platform quantities, one system per Gray Eagle UAS - AAO is commensurate with aircraft quantity (one STARLite and one CSP payload per aircraft). The AAO for TSP is 112 systems.

Common Sensor Payload (CSP) Electro Optical / Infra Red / Laser Designator (EO/IR/LD) provides Full Motion Video (FMV) in both the Electro Optical and Mid Wave IR spectrums with day/night capability to collect and display continuous imagery with the ability to designate targets of interest for attack by laser guided precision weapons in Standard Definition (SD) as well as High Definition (HD) for a select subset of Gray Eagle platforms. CSP is the EO/IR/LD sensor for Gray Eagle UAS which supports intelligence gathering, force applications, battlespace awareness, force protection, and net-centric operations across the battlefield to provide wide area, near real time RSTA capabilities. Additional initiatives will continue to focus on the transition of technologies directly supporting emerging requirements and the Army's Current and Future Force. CSP is a Key Performance Parameter (KPP) for the Gray Eagle UAS to include the Combat Aviation Brigade (CAB), US Army Special Operations Aviation Command (ARSOAC) and Aerial Exploitation Battalion (AEB) companies.

Small Tactical Radar - Lightweight (STARLite) SAR/MTI is a lightweight, high performance, all weather, multi-functional radar system for the Gray Eagle Unmanned Aircraft System (UAS). The STARLite system provides wide area, near real time RSTA capabilities. It operates throughout the UAS flight mission profile in adverse weather and through battlefield obscurants. The SAR mode generates quality images for the battlefield commander for detection, classification and location of stationary commercial wheeled vehicle-size targets. The MTI mode detects moving ground targets, to include man-sized detection, and provides location information and performs cross-cue with the Electro-Optic/Infrared (EO/IR) sensors.

The Tactical Signals Intelligence (SIGINT) Payload (TSP) is a SIGINT sensor, currently under development for the Gray Eagle that detects radio frequency (RF) emitters. The TSP system provides a SIGINT capability to the tactical commander. The TSP system is a modular, scalable payload using an architecture that is software reconfigurable to allow for growth and flexibility as technology, and as the adversaries

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

use of technology changes. This flexible architecture allows for third party software applications to be integrated into the TSP system. The TSP system processing, control and data dissemination is integrated into the Distributed Common Ground System - Army (DCGS-A) via the Operational Ground Station. It supports Manned/Unmanned (MUM) teaming with Brigade Combat Team ground SIGINT Terminal Guidance (STG) teams and manned airborne assets. The TSP system improves situational awareness and shortens the targeting cycle by detecting and identifying emitters associated with high value targets (HVTs). The TSP system is capable of processing conventional signals, standard military signals, and modern signals of interest. This includes detection, recognition, identification, direction finding, and high confidence geo-location.

Improved Gray Eagle (IGE) - Program Manager Unmanned Aircraft Systems(PM UAS) received a Congressional plus up of \$49M President's Budget15 (PB15) to procure Extended Range UAS which increases the CPD objective endurance requirements for the current GE configuration to an Improved Gray Eagle (IGE). To meet the PM UAS IGE test schedule 1st QTR FY18 and first unit equipped date, TSP must be integrated and tested on the IGE and the A-Kit must be modified.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	36	43	7	33	40	-	-	-	-
	Total Obligation Authority	148.353	91.735	5.910	41.400	47.310	3.397	3.460	3.406	3.474
Total: Secondary Distribution	Quantity	36	43	7	33	40	-	-	-	-
	Total Obligation Authority	148.353	91.735	5.910	41.400	47.310	3.397	3.460	3.406	3.474

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft

P-1 Line Item Number / Title:
A01001 / MQ-1 Payload (MIP)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	A01003 / SAR/MTI (MIP)	P-5a, P-21			- / 3.686	18 / 30.220	13 / 27.324	- / -	9 / 19.000	9 / 19.000
P-5	A01004 / SIGINT (MIP)	P-5a			2 / 13.218	- / 49.661	17 / 37.682	7 / 1.500	- / -	7 / 1.500
P-5	A01005 / CSP FMV (MIP)	P-5a, P-21			- / 8.409	18 / 68.472	13 / 26.729	- / 4.410	24 / 22.400	24 / 26.810
P-40	Total Gross/Weapon System Cost				2 / 25.313	36 / 148.353	43 / 91.735	7 / 5.910	33 / 41.400	40 / 47.310

*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:
 CSP:
 FY17 Amendment Justification: Amendment provided additional base procurement of \$22.000 million to procure 13 CSP payloads for 13 Extended Range MQ-1C Gray Eagle Platforms above the PB 2017 Request. These payloads will fill shortages in existing unit authorizations.

FY 2018 base procurement dollars in the amount of \$4.410 million supports integration and initial fielding of thirty (30) CSP payloads to one (1) Aerial Exploitation Battalion (AEB) and one (1) Combat Aviation Brigade (CAB). FY2018 OCO procurement dollars in the amount of \$22.400 million supports the procurement of nine (9) battle damage replacement payloads and fifteen (15) Standard Definition (SD) to High Definition (HD) payload upgrades.

STARLite: FY 2018 OCO procurement dollars in the amount of \$19.000 million supports the procurement of nine (9) STARLite payloads to replace Battle Damage losses and program management support.

TSP: FY 2018 base procurement dollars in the amount of \$1.500 million supports Improved Gray Eagle Calibration and contractor logistics support.

All Quantities are for the Active component.

Comments:
 In accordance with Section 1815 of the FY 2008 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 the homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01003 / SAR/MTI (MIP)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	18	13	-	9	9
Gross/Weapon System Cost (\$ in Millions)	3.686	30.220	27.324	-	19.000	19.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	3.686	30.220	27.324	-	19.000	19.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	3.686	30.220	27.324	-	19.000	19.000

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	1,678.889	2,101.846	-	2,111.111	2,111.111

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
STARLite System ^(t)	-	-	-	989.000	18	17.802	1,800.000	13	23.400	-	-	-	2,111.111	9	19.000	2,111.111	9	19.000
Spares	-	-	-	-	-	5.339	-	-	-	-	-	-	-	-	-	-	-	-
STARLite PMO Support	-	-	-	-	-	1.618	-	-	2.730	-	-	-	-	-	-	-	-	-
Engineering	-	-	1.891	-	-	3.563	-	-	-	-	-	-	-	-	-	-	-	-
ICS/Fielding Support	-	-	1.795	-	-	1.898	-	-	1.194	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	3.686	-	-	30.220	-	-	27.324	-	-	-	-	-	19.000	-	-	19.000
<i>Subtotal: Flyaway Cost</i>	-	-	3.686	-	-	30.220	-	-	27.324	-	-	-	-	-	19.000	-	-	19.000
Gross/Weapon System Cost	-	-	3.686	1,678.889	18	30.220	2,101.846	13	27.324	-	-	-	2,111.111	9	19.000	2,111.111	9	19.000

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	18	13	-	9	9
	Total Obligation Authority	30.220	27.324	-	19.000	19.000
Total:	Quantity	18	13	-	9	9
Secondary Distribution	Total Obligation Authority	30.220	27.324	-	19.000	19.000

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01003 / SAR/MTI (MIP)
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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
STARLite System ^(†)		2016	Northrop Grumman / Linthicum	SS / IDIQ	Linthicum, MD	May 2016	Aug 2017	18	989.000	Y		
STARLite System ^(†)		2017	Northrop Grumman / Linthicum	SS / FFP	Linthicum, MD	Apr 2018	Aug 2019	13	1,800.000	Y		
STARLite System ^(†)	✓	2018	Northrop Grumman / Linthicum	SS / FFP	Linthicum, MD	Apr 2018	Aug 2019	9	2,111.110	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01003 / SAR/MTI (MIP)
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
STARLite System																															
	1	2016	ARMY	18	6	12	4	4	4																				0		
	1	2017	ARMY	13	0	13																					2	2	9		
✓	1	2018	ARMY	9	0	9																				1	2	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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01003 / SAR/MTI (MIP)
----------------------------------------------------------------------------------	---------------------------------------------------------------------	---------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							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
STARLite System																															
	1	2016	ARMY	18	18	0																							0		
	1	2017	ARMY	13	4	9	2	2	2	3																			0		
✓	1	2018	ARMY	9	3	6	2	2	2																				0		
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01003 / SAR/MTI (MIP)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Northrop Grumman - Linthicum	4	5	5	0	0	0	0	0	0	4	12	16

Remarks:
Production rates are monthly.

"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).

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01004 / SIGINT (MIP)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	2	-	17	7	-	7
Gross/Weapon System Cost (\$ in Millions)	13.218	49.661	37.682	1.500	-	1.500
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	13.218	49.661	37.682	1.500	-	1.500
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	13.218	49.661	37.682	1.500	-	1.500

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	6,609.000	-	2,216.588	214.286	-	214.286

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Hardware Cost																		
Recurring Cost																		
TSP Systems ⁽¹⁾	2,203.000	6	13.218	-	-	23.490	1,566.000	17	26.622	-	-	-	-	-	-	-	-	-
TSP Engineering Change Proposals	-	-	-	-	-	1.301	-	-	0.836	-	-	-	-	-	-	-	-	-
TSP Contractor PMO/System Engineering	-	-	-	-	-	1.800	-	-	1.349	-	-	0.250	-	-	-	-	-	0.250
TSP Government PMO/System Engineering	-	-	-	-	-	1.523	-	-	3.109	-	-	0.250	-	-	-	-	-	0.250
TSP System Test and Evaluation	-	-	-	-	-	1.420	-	-	-	-	-	0.500	-	-	-	-	-	0.500
TSP Data/Technical Data Package	-	-	-	-	-	1.350	-	-	-	-	-	-	-	-	-	-	-	-
TSP Improved Gray Eagle Integration	-	-	-	-	-	8.000	-	-	0.833	-	-	-	-	-	-	-	-	-
IA COA Effort	-	-	-	-	-	2.207	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>13.218</i>	<i>-</i>	<i>-</i>	<i>41.091</i>	<i>-</i>	<i>-</i>	<i>32.749</i>	<i>-</i>	<i>-</i>	<i>1.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1.000</i>
<i>Subtotal: Hardware Cost</i>	<i>-</i>	<i>-</i>	<i>13.218</i>	<i>-</i>	<i>-</i>	<i>41.091</i>	<i>-</i>	<i>-</i>	<i>32.749</i>	<i>-</i>	<i>-</i>	<i>1.000</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1.000</i>
Logistics Cost																		
Recurring Cost																		
TSP Initial Spares	-	-	-	-	-	8.570	-	-	-	-	-	-	-	-	-	-	-	-
Interim Contrator Logistic Support	-	-	-	-	-	-	-	-	4.933	-	-	0.500	-	-	-	-	-	0.500

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01004 / SIGINT (MIP)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	8.570	-	-	4.933	-	-	0.500	-	-	-	-	-	0.500
<i>Subtotal: Logistics Cost</i>	-	-	-	-	-	8.570	-	-	4.933	-	-	0.500	-	-	-	-	-	0.500
Gross/Weapon System Cost	6,609.000	2	13.218	-	-	49.661	2,216.588	17	37.682	214.286	7	1.500	-	-	-	214.286	7	1.500

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	17	7	-	7
	Total Obligation Authority	49.661	37.682	1.500	-	1.500
Total: Secondary Distribution	Quantity	-	17	7	-	7
	Total Obligation Authority	49.661	37.682	1.500	-	1.500

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01004 / SIGINT (MIP)
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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
TSP Systems		2015	BAE Systems / Nashua	SS / IDIQ	ACC APG	Apr 2015	Feb 2017	6	1,566.000	Y		
TSP Systems		2017	BAE Systems / Nashua	SS / IDIQ	ACC APG	May 2017	Jul 2018	17	1,566.000	Y		

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01005 / CSP FMV (MIP)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	18	13	-	24	24
Gross/Weapon System Cost (\$ in Millions)	8.409	68.472	26.729	4.410	22.400	26.810
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	8.409	68.472	26.729	4.410	22.400	26.810
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	8.409	68.472	26.729	4.410	22.400	26.810

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	3,804.000	2,056.077	-	933.333	1,117.083

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
CSP HD Procurement ^(†)	-	-	-	1,098.000	15	16.470	1,488.000	13	19.344	-	-	-	1,488.000	9	13.392	1,488.000	9	13.392
CSP HD Initial Spares ^(†)	-	-	-	1,098.000	3	3.294	-	-	-	-	-	-	-	-	-	-	-	-
CSP Diode Pump Laser	-	-	-	165.000	57	9.405	-	-	-	-	-	-	-	-	-	-	-	-
CSP HD Platform Retrofit/Upgrades	-	-	2.810	454.000	60	27.240	-	-	-	-	-	-	468.000	15	7.020	468.000	15	7.020
CSP DMV-184 Processor Cards	-	-	-	21.000	135	2.835	-	-	-	-	-	-	-	-	-	-	-	-
CSP Diode Pump Laser Integration	-	-	-	-	-	2.490	-	-	-	-	-	-	-	-	-	-	-	-
CSP PMO Support	-	-	0.488	-	-	0.345	-	-	2.550	-	-	0.309	-	-	1.988	-	-	2.297
CSP Interim Contractor Support (SD)	-	-	3.101	-	-	3.194	-	-	-	-	-	-	-	-	-	-	-	-
CSP Interim Contractor Support (HD)	-	-	-	-	-	1.559	-	-	-	-	-	-	-	-	-	-	-	-
CSP Initial Fielding Support	-	-	2.010	-	-	1.640	-	-	4.835	-	-	4.101	-	-	-	-	-	4.101
<i>Subtotal: Recurring Cost</i>	-	-	8.409	-	-	68.472	-	-	26.729	-	-	4.410	-	-	22.400	-	-	26.810
<i>Subtotal: Flyaway Cost</i>	-	-	8.409	-	-	68.472	-	-	26.729	-	-	4.410	-	-	22.400	-	-	26.810

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10						P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)						Item Number / Title [DODIC]: A01005 / CSP FMV (MIP)					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Gross/Weapon System Cost	-	-	8.409	3,804.000	18	68.472	2,056.077	13	26.729	-	-	4.410	933.333	24	22.400	1,117.083	24	26.810

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	18	13	-	24	24
	Total Obligation Authority	68.472	26.729	4.410	22.400	26.810
Total:	Quantity	18	13	-	24	24
Secondary Distribution	Total Obligation Authority	68.472	26.729	4.410	22.400	26.810

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01005 / CSP FMV (MIP)
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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
CSP HD Procurement ^(†)		2016	Raytheon / McKinney	C / FFP	ACC, APG	Mar 2016	Mar 2017	15	1,098.000	N		
CSP HD Procurement ^(†)		2017	TBD / TBD	SS / FFP	ACC, APG	Mar 2018	Feb 2019	13	1,488.000	N		
CSP HD Procurement ^(†)	✓	2018	TBD / TBD	SS / FFP	ACC, APG	Mar 2018	Feb 2019	9	1,488.000	N		
CSP HD Initial Spares		2016	Raytheon / McKinney	C / FFP	ACC, APG	Mar 2016	Jun 2017	3	1,098.000	N		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01005 / CSP FMV (MIP)
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
CSP HD Procurement																															
	1	2016	ARMY	15	15	0																							0		
	2	2017	ARMY	13	0	13																							5		
✓	2	2018	ARMY	9	0	9																							1		
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10 **P-1 Line Item Number / Title:** A01001 / MQ-1 Payload (MIP) **Item Number / Title [DODIC]:** A01005 / CSP FMV (MIP)

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							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
CSP HD Procurement																															
	1	2016	ARMY	15	15	0																							0		
	2	2017	ARMY	13	8	5	1		2		2																		0		
✓	2	2018	ARMY	9	8	1	1																						0		
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01001 / MQ-1 Payload (MIP)	Item Number / Title [DODIC]: A01005 / CSP FMV (MIP)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Raytheon - McKinney	1	24	125	0	0	0	0	0	0	5	12	17
2	TBD - TBD	1	24	125	0	0	0	0	0	0	5	12	17

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02706 / Universal Ground Control Equipment (UAS)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	15.000	-	15.000	4.668	2.126	2.000	4.969	-	28.763
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	15.000	-	15.000	4.668	2.126	2.000	4.969	-	28.763
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	15.000	-	15.000	4.668	2.126	2.000	4.969	-	28.763

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Note: Universal Ground Control Equipment previously funded under A00005 MQ-1 UAV and A00018 RQ-7 UAV Mods.

The Universal Products consist of the Universal Ground Control Station (UGCS), the Universal Ground Data Terminal (UGDT) and the Universal Mission Simulator (UMS). The Universal Products will be capable of flight and payload control of multiple unmanned aircraft systems. Protected in a climate-controlled, standard S-280 or S-788 U.S. Army shelter and mounted on either a standard Army FMTV or HMMWV, the UGCS receives and disseminates battlefield video and situational awareness data through state-of-the-art operator consoles. Consoles can be used to provide aircraft command and control, payload control and weapons launch.

The UGDT provides a Line of Sight (LOS) capability for transmit and receipt of UAS command and control, and UAS payload product. The UGDT is the common datalink system for U. S. Army UAS.

The Universal Mission Simulator (UMS) consists of the hardware and software required to fully train UAS operators to full Readiness Level (RL) 1. The UMS will be capable of training and simulating flight and payload control of multiple unmanned aircraft systems and features Directorate of Simulation (DOS) accredited Shadow software and Gray Eagle software.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	15.000	-	15.000	4.668	2.126	2.000
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	15.000	-	15.000	4.668	2.126	2.000

Justification:

Justification: FY18 Base Procurement funds in the amount of \$15.000 Million will be utilized to support the following Universal Products (UGCS and UGDT) efforts:

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft		P-1 Line Item Number / Title: A02706 / Universal Ground Control Equipment (UAS)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>Title: Universal Products (UGCS and UGDT) The APA funding begins the procurement and implementation of hardware to address obsolescence while enforcing commonality (including a controller to better support weapons engagement) across the U product fleet. Current planning allocates \$9.3 Million for procurement of common UGCS computing/communications hardware and associated integration/qualification. \$3.3 Million is allocated for the procurement of a controller for all UGCS (112 Gray Eagle and 208 Shadow) and UMS (106) plus initial spares. The remaining \$2.4 Million is allocated for cross-domain hardware (6 minimum) and initial UMS hardware retrofits to increase manned-unmanned training capability. Retrofits will be required for all 106 UMS but this funding will only buy a few (<25%).</p>		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA6601 / Gray Eagle Mods2
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305204A, 0305219A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291	103.246	58.724	24.662	0.000	-	260.923
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291	103.246	58.724	24.662	0.000	-	260.923
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291	103.246	58.724	24.662	0.000	-	260.923

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Note
This is a new start for FY18.

The MQ-1C Gray Eagle provides the Army with an extended range, multi-purpose (ERMP) unmanned aircraft system (UAS); capable of executing reconnaissance, security, attack, and intelligence collection missions in the range of military operations (ROMO). Sensors/payloads include an Electro-Optical/Infrared/Laser Designator (EO/IR/LD), Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI), Signals Intelligence (SIGINT), and HELLFIRE missiles; providing a near all-weather mission capability. MQ-1C Gray Eagle is a dedicated, assured, multi-mission Unmanned Aircraft System (UAS) fielded to all Army Divisions, Intelligence and Security Command and Army Special Operations Command in support of the commander's warfighting priorities.

The MQ-1C Gray Eagle Modification/Product Improvement Program (PIP) funding is required for the modernization of the SATCOM datalink which includes Ka band. SATCOM modernization includes integration, new hardware, software changes, and fielding costs. PIP funding is also required for hardware and software procurement to survive in a Global Positioning System (GPS) Denied environment.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	74.291	-	74.291	103.246	58.724	24.662	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	-	74.291	-	74.291	103.246	58.724	24.662	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft **P-1 Line Item Number / Title:**
 AA6601 / Gray Eagle Mods2

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305204A, 0305219A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A00002 / MQ-1C Gray Eagle Modifications (UNCLASSIFIED)				- / -	- / -	- / -	- / 74.291	- / -	- / 74.291
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / -	- / 74.291	- / -	- / 74.291

*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:

The Fiscal Year (FY) 2018 Aircraft Modification/Product Improvement funding of \$74.291 million will support the procurement of the Global Positioning System (GPS) Denied equipment and to migrate the SATCOM datalink to the Ka band frequency.

Funding supports integration of a multi-phased approach for GPS out navigation to include use of Anti-Jam antennas, navigation with the Electro-Optical (EO) / Infrared (IR) camera, and Pseudo-lite systems (coordination with PM PNT). Integration includes software upgrades, hardware fielding, spares, training updates and materiel release documentation to support fielding.

The modernization of the SATCOM datalink will include Ka band frequency which will improve the security of the datalink, increase bandwidth capability, and yield long-term cost savings. Data link protection is critical to the survivability of the aircraft and for information assurance. The modernization requires the procurement of new SATCOM ground and aircraft equipment including the Universal SATCOM Ground Data Terminal, SATCOM Air Data Terminal, new modems, software updates and fielding.

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6601 / Gray Eagle Mods2	Modification Number / Title: A00002 / MQ-1C Gray Eagle Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	-	74.291	-	74.291

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

The MQ-1C Gray Eagle provides the Army with an extended range, multi-purpose (ERMP) unmanned aircraft system (UAS); capable of executing reconnaissance, security, attack, and intelligence collection missions in the range of military operations (ROMO). Sensors/payloads include an Electro-Optical/Infrared/Laser Designator (EO/IR/LD), Synthetic Aperture Radar/Moving Target Indicator (SAR/MTI), Signals Intelligence (SIGINT), and HELLFIRE missiles; providing a near all-weather mission capability. MQ-1C Gray Eagle is a dedicated, assured, multi-mission Unmanned Aircraft System (UAS) fielded to all Army Divisions, Intelligence and Security Command and Army Special Operations Command in support of the commander's warfighting priorities.

The MQ-1C Gray Eagle Modification/Product Improvement Program (PIP) funding is required for the procurement of the Global Positioning System (GPS) Denied and SATCOM Modernization efforts. The GPS Denied effort supports the integration of a multi-phased approach for GPS out navigation to include use of Anti-Jam antennas, navigation with the Electro-Optical (EO) / Infrared (IR) camera, and Pseudo-lite systems (coordination with Program Manager, Position, Navigation, and Timing (PM PNT). Integration includes software development/test, hardware fielding, spares, training development and materiel release documentation to support fielding. SATCOM modernization, which includes Ka band, requires the procurement of new SATCOM ground and aircraft equipment including the Universal SATCOM Ground Data Terminal, SATCOM Air Data Terminal, new modems, software updates and fielding.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	74.291	-	74.291
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	74.291	-	74.291

Development Status/Major Development Milestones

Date	Title	Description
Aug 2018	Global Positioning System (GPS) Denied	Retrofits
Aug 2020	SATCOM Modernization	Retrofits

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Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA6601 / Gray Eagle Mods2		Modification Number / Title: A00002 / MQ-1C Gray Eagle Modifications	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: N/A		Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement						
Modification Item 1 of 2: Global Positioning System (GPS) Denied						
B Kits						
Recurring						
Global Positioning System (GPS) Denied	0 / 0.000	0 / 0.000	0 / 0.000	49 / 16.807	0 / 0.000	49 / 16.807
Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.662	0 / 0.000	0 / 1.662
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 18.469	- / 0.000	- / 18.469
Subtotal: Global Positioning System (GPS) Denied	0 / 0.000	0 / 0.000	0 / 0.000	49 / 18.469	0 / 0.000	49 / 18.469
Modification Item 2 of 2: Satellite Communications (SATCOM) Modernization						
A Kits						
Non-Recurring						
SATCOM Modernization / Multi-Band	0 / 0.000	0 / 0.000	0 / 0.000	0 / 50.240	0 / 0.000	0 / 50.240
SATCOM Modernization/Multi-Band Mgmt	0 / 0.000	0 / 0.000	0 / 0.000	0 / 5.582	0 / 0.000	0 / 5.582
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 55.822	- / 0.000	- / 55.822
Subtotal: Satellite Communications (SATCOM) Modernization	0 / 0.000	0 / 0.000	0 / 0.000	0 / 55.822	0 / 0.000	0 / 55.822
Subtotal: Procurement, All Modification Items	0 / 0.000	0 / 0.000	0 / 0.000	49 / 74.291	0 / 0.000	49 / 74.291
Installation						
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -
Total						
Total Cost (Procurement + Support + Installation)	-	-	-	74.291	-	74.291

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10		P-1 Line Item Number / Title: AA6601 / Gray Eagle Mods2	
		Modification Number / Title: A00002 / MQ-1C Gray Eagle Modifications	
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:	
Modification Item 1 of 2: Global Positioning System (GPS) Denied			
Manufacturer Information			
Manufacturer Name: General Atomics (GA-ASI)		Manufacturer Location: Poway, CA	
Administrative Leadtime (in Months): 24		Production Leadtime (in Months): 24	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			Jan 2018
Delivery Dates			Feb 2020
Installation Information			
Method of Implementation (Organic): FSR Fielded Retrofits		Installation Quantity: 0	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10		P-1 Line Item Number / Title: AA6601 / Gray Eagle Mods2	
		Modification Number / Title: A00002 / MQ-1C Gray Eagle Modifications	
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:	
Modification Item 2 of 2: Satellite Communications (SATCOM) Modernization			
Manufacturer Information			
Manufacturer Name: General Atomics (GA-ASI)		Manufacturer Location: Poway, CA	
Administrative Leadtime (<i>in Months</i>): 24		Production Leadtime (<i>in Months</i>): 12	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			Jan 2018
Delivery Dates			Feb 2020
Installation Information			
Method of Implementation (Organic): FSR Fielded Retrofits		Installation Quantity: 0	

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	907.371	104.350	115.927	68.812	33.475	102.287	59.793	45.828	41.612	99.366	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	907.371	104.350	115.927	68.812	33.475	102.287	59.793	45.828	41.612	99.366	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	907.371	104.350	115.927	68.812	33.475	102.287	59.793	45.828	41.612	99.366	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AZ2001 Multi Sensor ABN Recon (MIP) is the Parent Line to Airborne Reconnaissance Low - Enhanced (MIP)(ARL-E) (AZ2050),EMARSS Payloads (MIP)(AZ2054) and Guardrail Payloads (MIP) (AZ2052),IAW the Aerial Layer 2020 Strategy.

Airborne Reconnaissance Low - Enhanced (ARL-E) is a worldwide self-deployable airborne Intelligence Surveillance Reconnaissance (ISR) system designed for timely, accurate, assured support to tactical forces over the full spectrum of operations. This system is a De Havilland DHC-8 aircraft replacing the DHC-7 IAW the Aerial ISR (AISR) 2020 Strategy. ARL-E will enhance the ARL-M sensor capability sets through the procurement of new and refurbished sensors to meet the ARL-E Capabilities Production Document (CPD) requirements. It provides a persistent capability to include: Broad-Area Surveillance and/or Focused Stare on Target Areas of Interest (Point or Objective Targets), Electro-Optical/Infrared (EO/IR)/Full-Motion Video (FMV) , Multi-Mode Radar, Robust Communications Intelligence (COMINT), on-Board Collection, Analysis, Sensor Cross Cue and dissemination through Distributed Common Ground System-Army (DCGS-A) Enabled workstations. ARL-E will be assigned to the U.S. Army Intelligence and Security Command's Aerial ISR Brigade providing AISR support to combatant commanders. For the overall system, the Army Acquisition Objective and the Army Procurement Objective, is nine (9). The Mission Equipment Package (MEP) objective is eight (8).

This funding line supports the procurement and modernization of eight (8) complete MEP sets, which includes the following sensors: one (1) COMINT subsystem capable of supporting theater net centric geo-location efforts, two (2) High Definition FMV sensors and one (1) Improved Synthetic Aperture Radar / Ground Moving Target Indicator (SAR/GMTI) radar subsystem or one (1) SAR/Dismounted Moving Target Indicator (DMTI) subsystem. The MEP will also include four (4) DCGS-A workstations, one (1) set of communication equipment (mission radios, Beyond line of Site (BLOS) and Line of Site (LOS) Data links). ARL-E will be capable of rapid installation of sensors in a plug and play, quick connect/disconnect, mounting system to allow various combinations of sensor-types in support of a wide-range of theater operations. All MEPs will include the infrastructure to plug and play a Hyper-spectral imagery (HSI) Payload purchased under a QRC program. Future Growth capabilities include: Wide-Area Aerial Surveillance (WAAS), Light Detection and Ranging (LiDAR) and Foliage Penetration Radar (FOPEN).

The overall Airborne Reconnaissance Low-Enhanced (ARL-E) procurement/modernization efforts are found in the following three (3) lines; AZ2050 ARL Payloads (Project Manager Sensors - Aerial Intelligence), A02109, ARL-E SEMA (MIP) and A02110 ARL-E SEMA Mods (MIP) (Fixed Wing Project Office). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne Intelligence systems to Program Executive Officer for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

The Guardrail Common Sensor (GRCS) is a RC-12 fixed-wing, airborne, Signals Intelligence (SIGINT) and Imagery Intelligence (IMINT) collection and precision targeting location system. It provides a persistent capability to detect, locate and classify/identify high value targets with a relevant degree of timeliness and accuracy. GRCS is assigned to two (2) U.S. Army Intelligence and Security Command's Aerial Exploitation Battalions, providing Aerial Intelligence, Surveillance and Reconnaissance (AISR) support to combatant commanders. In accordance with the Army's AISR 2020 strategy, the Army's Acquisition Objective/Army's Procurement Objective is 14 RC-12X+; seven (7) will be fielded to 3rd MI; and seven (7) will be fielded to the 204th MI. Additionally, there are five (5) trainers to support Force Generation.

This funding line supports the procurement and upgrade of the following sensor capabilities: Electro-Optical /Infrared (EO/IR)/Full Motion Video (FMV), communications intelligence (COMINT) and electronic intelligence (ELINT).

The overall GRCS procurement/modernization efforts are found in the following two lines: AZ2052 Guardrail Payloads (MIP) and A02111 GRCS SEMA MODS (MIP). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne Intelligence systems to Program Executive Office for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors.

GRCS has transitioned from AZ2000.

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. It provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS will be assigned to the U.S. Army Intelligence and Security Command's Aerial Exploitation Battalions, providing Aerial Intelligence, Surveillance and Reconnaissance support to combatant commanders. The Army Acquisition Objective for EMARSS is 36 systems, with an Army Procurement Objective of 24, to include the following variants: eight (8) EMARSS-G (Geo-INT); four (4) EMARSS-V (Vehicle and Dismount Exploitation Radar, VaDER); eight (8) EMARSS-M (Multi-INT); and four (4) EMARSS-S (SIGINT).

Each EMARSS variant will have a distinct Mission Equipment Package (MEP). This funding line supports the procurement and upgrade of the following sensor capabilities: Electro-optical/Infrared (EO/IR)/Full Motion Video (FMV); a Communications Intelligence (COMINT) to include Big Iron; Wide Area Aerial Surveillance (WAAS); Light Imaging Detection and Ranging (LiDAR) and improved Synthetic Aperture Radar / Moving Target Indicator (SAR/MTI) radar; line-of-site (LOS) and beyond line-of-site (BLOS) communications; and Processing Exploitation and Dissemination (PED) supporting two Distributed Common Ground System - Army (DCGS-A) enabled operator workstations. Lastly, this line supports future pre-planned product improvements.

The overall EMARSS procurement/modernization efforts are found in the following two lines; AZ2054 EMARSS Payloads (Project Manager Sensors - Aerial Intelligence) and A02112 EMARSS SEMA Mods (Fixed Wing Project Office). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne Intelligence systems to Program Executive Officer for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors.

EMARSS transitioned from A02005.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	104.350	115.927	68.812	33.475	102.287	59.793	45.828	41.612	99.366
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	104.350	115.927	68.812	33.475	102.287	59.793	45.828	41.612	99.366

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft

P-1 Line Item Number / Title:
AZ2001 / Multi Sensor ABN Recon (MIP)

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AZ2050 / ARL Mod-In-Service (Operational)				- / 907.369	- / 68.540	- / 74.380	- / 59.938	- / -	- / 59.938
P-3a	AZ2052 / Guardrail MODS MIP (U)				- / 0.001	- / 13.515	- / 24.450	- / 5.595	- / 29.475	- / 35.070
P-40a	AZ2054 / EMARSS Payloads (MIP)				- / 0.001	- / 22.295	- / 17.097	- / 3.279	- / 4.000	- / 7.279
P-40	Total Gross/Weapon System Cost				- / 907.371	- / 104.350	- / 115.927	- / 68.812	- / 33.475	- / 102.287

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AZ2050 / ARL Mod-In-Service (Operational)				- / -	- / -	- / -	- / -	- / -	- / -
P-3a	AZ2052 / Guardrail MODS MIP (U)				- / -	- / -	- / -	- / -	- / -	- / -
P-40a	AZ2054 / EMARSS Payloads (MIP)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 59.793	- / 45.828	- / 41.612	- / 99.366	Continuing	Continuing

*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:

FY 2018 base funding to support the overall ARL-E effort are found in the following two lines: AZ2050 ARL Payloads and A02110 ARL SEMA Mods (Project Manager Fixed Wing (PM FW) (separate form).

The purpose of ARL-E AZ2050 is to procure, upgrade, test and integrate sensors; communications architecture for sensor information exploitation and dissemination; test, nonrecurring engineering, and integration in support of the ARL-E Payload program ensuring ARL-E is rapidly deployable world-wide against current, new, and emerging threats.

ARL-E FY 2018 Base procurement dollars in the amount of \$59.938 million supports the procurement of Mission Equipment Payload (MEP) for aircraft 4. The systems procured will consist of one (1) set of Distributed Common Ground Station-Army (DCGS-A) workstations, one (1) set of communication equipment (mission radios, Beyond line of Site (BLOS) and Line of Site (LOS) Data links), two (2) sets of Full Motion Video (FMV) MX-20 sensors, and one (1) COMINT subsystem. The funding will support System Integration Lab (SIL) testing and aircraft modification of one system - aircraft 4. The funding will also support aircraft integration and test of one (1) system - aircraft 3.

As a result of aircraft integration funding in FY18 being moved from the PM FW ARL SEMA Mods funding line (A02110) to the PM SAI ARL Payloads funding line (AZ2050), quantities have been updated from individual MEP components to now reflect the completion of aircraft integration. The schedule (in/out) now reflects the start of MEP SIL testing and completion of aircraft integration efforts.

Beginning in FY 2016 forward, the overall GRCS efforts are found in the following two lines; AZ2052 GRCS Payloads (Project Manager Sensors - Aerial Intelligence (PM SAI)) and A02111 GRCS SEMA (Project Manager Fixed Wing (PM FW)) (separate form).

The purpose of GRCS AZ2052 is to procure, upgrade, test and integrate sensors; communications architecture for sensor information exploitation and dissemination; test, nonrecurring engineering, and integration in support of the Guardrail payload program ensuring Guardrail is rapidly deployable world-wide against current, new, and emerging threats.

Per HQDA G-8 Memo, dated 17 March 2017, the FMV requirement has been rescinded.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft		P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>GRCS FY 2018 Base procurement dollars in the amount of \$5.595 million supports the integration of the Communications High Accuracy Location Subsystem-Compact (CHALS-C) onto the Consolidated Signal Solution (CSS) 3400 chassis; including the procurement of four (4) software cards, Integration and Test (I&T), engineering, and accreditation for two (2) aircraft. This effort helps reduce aircraft weight and mitigate CHALS-C hardware end of life/obsolescence issues.</p> <p>GRCS FY 2018 OCO procurement dollars in the amount of \$29.475 million supports sensor procurement, integration, testing, engineering, and program management to upgrade seven (7) ELINT systems to support the European Response Initiative.</p> <p>FY 2018 base funding to support the overall EMARSS efforts are found in the following two lines: AZ2054 EMARSS Payloads (per this form) and A02112 EMARSS SEMA (separate form).</p> <p>The purpose of EMARSS AZ2054 is to support the procurement and upgrade of the following sensor payload capabilities: Electro-optical/Infrared (EO/IR)/Full Motion Video (FMV); a Communications Intelligence (COMINT) to include Big Iron; Wide Area Aerial Surveillance (WAAS); Light Imaging Detection and Ranging (LiDAR) and improved Synthetic Aperture Radar / Moving Target Indicator (SAR/MTI) radar; Line-Of-Site (LOS) and Beyond Line-Of-Site (BLOS) communications; Processing Exploitation and Dissemination (PED) supporting two Distributed Common Ground System - Army (DCGS-A) enabled operator workstations; and pre-planned product improvements.</p> <p>FY 2018 Base procurement dollars in the amount of \$3.279 million supports the sensor engineering support of the testing and fielding of one (1) VADER Quick Reaction Capability (QRC) conversion to EMARSS-V and three (3) Constant Hawk / TACOP QRC conversions to EMARSS-G systems to EMARSS Capabilities Production Document (CPD) compliant configurations. This plan can change based on the needs of the Warfighter. In the event the plan changes, available QRCs will be converted.</p> <p>FY 2018 OCO procurement dollars in the amount of \$4.000 million procures Communications Intelligence (COMINT) resets and upgrades to maintain operational readiness for Operation Freedom's Sentinel (OFS).</p> <p>In accordance with Section 1815 of the FY 2008 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.</p> <p>All funding is in Active Component.</p>		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2050 / ARL Mod-In-Service

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	907.369	68.540	74.380	59.938	-	59.938	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	907.369	68.540	74.380	59.938	-	59.938	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	907.369	68.540	74.380	59.938	-	59.938	-	-	-	-	-	-

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

ARL-E FY 2018 Base procurement dollars in the amount of \$59.938 million supports the procurement of Mission Equipment Payload (MEP) for aircraft 4. The systems procured will consist of one (1) set of Distributed Common Ground Station-Army (DCGS-A) workstations, one (1) set of communication equipment (mission radios, Beyond line of Site (BLOS) and Line of Site (LOS) Data links), two (2) sets of Full Motion Video (FMV) MX-20 sensors, and one (1) COMINT subsystem. The funding will support System Integration Lab (SIL) testing and aircraft modification of one system - aircraft 4. The funding will also support aircraft integration and test of one (1) system - aircraft 3.

As a result of aircraft integration funding in FY18 being moved from the PM FW ARL SEMA Mods funding line (A02110) to the PM SAI ARL Payloads funding line (AZ2050), quantities have been updated from individual MEP components to now reflect the completion of aircraft integration. The schedule (in/out) now reflects the start of MEP SIL testing and completion of aircraft integration efforts.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	68.540	74.380	59.938	-	59.938	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	68.540	74.380	59.938	-	59.938	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army											Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)					Modification Number / Title: AZ2050 / ARL Mod-In-Service			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: ARL				Modification Type: Operational				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1: ARL Enhanced (ARL-E)</i>												
A Kits												
Recurring												
System Test & Eval support	0 / 7.883	0 / 15.685	0 / 0.000	0 / 2.267	0 / 0.000	0 / 2.267	- / -	- / -	- / -	- / -	- / -	- / -
Program Mgt	0 / 11.151	0 / 6.854	0 / 4.365	0 / 5.994	0 / 0.000	0 / 5.994	- / -	- / -	- / -	- / -	- / -	- / -
Spares	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.152	0 / 0.000	0 / 1.152	- / -	- / -	- / -	- / -	- / -	- / -
Training and Documentation	0 / 2.552	0 / 3.502	0 / 0.000	0 / 1.518	0 / 0.000	0 / 1.518	- / -	- / -	- / -	- / -	- / -	- / -
Field Support	0 / 1.167	0 / 0.000	0 / 0.000	0 / 2.184	0 / 0.000	0 / 2.184	- / -	- / -	- / -	- / -	- / -	- / -
Aircraft Standardization	0 / 13.791	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Aircraft Modification	0 / 0.000	0 / 0.000	0 / 2.485	0 / 5.134	0 / 0.000	0 / 5.134	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 36.544	- / 26.041	- / 6.850	- / 18.249	- / 0.000	- / 18.249	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
Non Recurring Engineering	0 / 13.372	0 / 8.930	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 13.372	- / 8.930	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
B Kits												
Recurring												
Upgrade MX-20D SWIR sensors	0 / 3.000	0 / 1.100	0 / 0.000	0 / 2.242	0 / 0.000	0 / 2.242	- / -	- / -	- / -	- / -	- / -	- / -
SAR/DMTI sensor	0 / 25.250	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Communications procurement	0 / 9.200	0 / 0.000	0 / 2.710	0 / 2.770	0 / 0.000	0 / 2.770	- / -	- / -	- / -	- / -	- / -	- / -
LRR/Integration	0 / 10.711	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
COMINT	0 / 15.600	0 / 3.396	0 / 11.020	0 / 2.767	0 / 0.000	0 / 2.767	- / -	- / -	- / -	- / -	- / -	- / -
HSI upgrade	0 / 1.701	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
DCGS-A Workstations	0 / 6.810	0 / 10.432	0 / 21.220	0 / 5.405	0 / 0.000	0 / 5.405	- / -	- / -	- / -	- / -	- / -	- / -
Upgrade MX-20HD Sensors	0 / 2.100	0 / 0.400	0 / 0.000	0 / 1.305	0 / 0.000	0 / 1.305	- / -	- / -	- / -	- / -	- / -	- / -
MEP/PED System Integration Lab (SIL)	0 / 8.982	0 / 11.707	0 / 6.700	0 / 9.200	0 / 0.000	0 / 9.200	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 83.354	- / 27.035	- / 41.650	- / 23.689	- / 0.000	- / 23.689	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: ARL Enhanced (ARL-E)	0 / 133.270	0 / 62.006	0 / 48.500	0 / 41.938	0 / 0.000	0 / 41.938	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Procurement, All Modification Items	0 / 133.270	0 / 62.006	0 / 48.500	0 / 41.938	0 / 0.000	0 / 41.938	- / -	- / -	- / -	- / -	- / -	- / -
Installation												
<i>Modification Item 1 of 1: ARL Enhanced (ARL-E)</i>	0 / 774.099	1 / 6.534	2 / 25.880	1 / 18.000	- / -	1 / 18.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Installation	0 / 774.099	1 / 6.534	2 / 25.880	1 / 18.000	- / -	1 / 18.000	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)					Modification Number / Title: AZ2050 / ARL Mod-In-Service			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: ARL				Modification Type: Operational				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Total													
Total Cost (Procurement + Support + Installation)	907.369	68.540	74.380	59.938	-	59.938	-	-	-	-	-	-	

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2050 / ARL Mod-In-Service

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: ARL Enhanced (ARL-E)

Manufacturer Information

Manufacturer Name: Leidos	Manufacturer Location: Maryland
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 24

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Nov 2015						
Delivery Dates							

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 774.099	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	1 / 6.534	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	2 / 25.880	1 / 18.000	- / -	1 / 18.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 774.099	1 / 6.534	2 / 25.880	1 / 18.000	- / -	1 / 18.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	8
Out	-	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	3	8

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP

ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:										
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.001	13.515	24.450	5.595	29.475	35.070	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.001	13.515	24.450	5.595	29.475	35.070	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.001	13.515	24.450	5.595	29.475	35.070	-	-	-	-	-	-
<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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Per G-8 Memo, dated 17 March 2017, the FMV requirement has been rescinded. Funds that previously supported FMV will be repurposed to meet near-peer threats.

GRCS FY 2018 Base procurement dollars in the amount of \$5.595 million supports the integration of the Communications High Accuracy Location Subsystem-Compact (CHALS-C) onto the Consolidated Signal Solution (CSS) 3400 chassis; including the procurement of four (4) software cards, Integration and Test (I&T), engineering, and accreditation for two (2) aircraft. This effort helps reduce aircraft weight and mitigate CHALS-C hardware end of life/obsolescence issues.

GRCS FY 2018 OCO procurement dollars in the amount of \$29.475 million supports sensor procurement, integration, testing, engineering, and program management to upgrade seven (7) ELINT systems to support the European Response Initiative.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.515	24.450	5.595	29.475	35.070	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.515	24.450	5.595	29.475	35.070	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)					Modification Number / Title: AZ2052 / Guardrail MODS MIP			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: See individual Mods				Modification Type: U				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 4: CHALS-C													
A Kits													
Recurring													
Material	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.100	0 / 0.000	0 / 1.100	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.100	- / 0.000	- / 1.100	- / -	- / -	- / -	- / -	- / -	- / -	
B Kits													
Recurring													
Installation	0 / 0.000	0 / 0.000	0 / 0.000	2 / 3.295	0 / 0.000	2 / 3.295	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 3.295	- / 0.000	- / 3.295	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Non Recurring Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.200	0 / 0.000	0 / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.200	- / 0.000	- / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: CHALS-C	0 / 0.000	0 / 0.000	0 / 0.000	2 / 5.595	0 / 0.000	2 / 5.595	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 2 of 4: Full Motion Video (FMV)													
A Kits													
Recurring													
Fielding/Training	0 / 0.000	0 / 0.200	0 / 0.200	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
PM Costs	0 / 0.000	0 / 1.351	0 / 0.637	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Spares	0 / 0.000	0 / 1.500	0 / 0.393	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
FSR Support	0 / 0.000	0 / 2.028	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Pilot Support	0 / 0.000	0 / 0.300	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 5.379	- / 1.230	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
B Kits													
Recurring													
Kit Quantity (Camera Reset)	0 / 0.000	0 / 2.680	1 / 0.393	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 2.680	- / 0.393	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Full Motion Video (FMV)	0 / 0.000	0 / 8.059	1 / 1.623	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 3 of 4: LS													
A Kits													
Recurring													
Fielding/Training	0 / 0.000	0 / 0.000	0 / 0.750	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	

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Exhibit P-3a, Individual Modification: FY 2018 Army											Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)						Modification Number / Title: AZ2052 / Guardrail MODS MIP			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: See individual Mods				Modification Type: U				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
PM Costs	0 / 0.000	0 / 0.000	0 / 1.575	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Integration/Test	0 / 0.000	0 / 0.000	0 / 1.500	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Spares	0 / 0.000	0 / 0.000	0 / 2.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 5.825	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Software Development	0 / 0.000	0 / 0.000	0 / 5.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Accreditation	0 / 0.000	0 / 0.000	0 / 0.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
OGS/PED	0 / 0.000	0 / 0.000	0 / 1.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 6.300	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: LS	0 / 0.000	0 / 0.000	0 / 12.125	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 4 of 4: ELINT													
A Kits													
Recurring													
DPED/OGS Support	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.100	0 / 1.100	- / -	- / -	- / -	- / -	- / -	- / -	
Logistics Support	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.800	0 / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	
Link Support	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.200	0 / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	
Program Mgt	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.900	0 / 2.900	- / -	- / -	- / -	- / -	- / -	- / -	
Spares	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 3.000	0 / 3.000	- / -	- / -	- / -	- / -	- / -	- / -	
Recurring Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 5.500	0 / 5.500	- / -	- / -	- / -	- / -	- / -	- / -	
Software Support	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.600	0 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	
Material	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 3.400	0 / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 18.500	- / 18.500	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Non Recurring Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 3.700	0 / 3.700	- / -	- / -	- / -	- / -	- / -	- / -	
Integration and Test	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.800	0 / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 4.500	- / 4.500	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: ELINT	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 23.000	0 / 23.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Procurement, All Modification Items	0 / 0.000	0 / 8.059	1 / 13.748	2 / 5.595	0 / 23.000	2 / 28.595	- / -	- / -	- / -	- / -	- / -	- / -	
Installation													
Modification Item 2 of 4: Full Motion Video (FMV)	1 / 0.001	2 / 5.456	2 / 5.327	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 3 of 4: LS	0 / 0.000	0 / 0.000	4 / 5.375	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 4 of 4: ELINT	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	7 / 6.475	7 / 6.475	- / -	- / -	- / -	- / -	- / -	- / -	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Models of Systems Affected: See individual Mods **Modification Type:** U **Related RDT&E PEs:**

Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Installation</i>	1 / 0.001	2 / 5.456	6 / 10.702	0 / 0.000	7 / 6.475	7 / 6.475	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	0.001	13.515	24.450	5.595	29.475	35.070	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 4: CHALS-C

Manufacturer Information

Manufacturer Name: ACET	Manufacturer Location: Sacramento, CA
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12
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Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2017				
Delivery Dates							

Installation Information

Method of Implementation: TBD

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 4: Full Motion Video (FMV)

Manufacturer Information

Manufacturer Name: Northrup Grumman	Manufacturer Location: Sacramento, CA
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12
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Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Jul 2016						
Delivery Dates							

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.001	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	2 / 5.456	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	2 / 5.327	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.001	2 / 5.456	2 / 5.327	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 4: LS

Manufacturer Information

Manufacturer Name: Northrop Grumman	Manufacturer Location: Sacramento, CA
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12
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Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		May 2017					
Delivery Dates			Sep 2018				

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	4 / 5.375	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	4 / 5.375	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AZ2001 / Multi Sensor ABN Recon (MIP)	Modification Number / Title: AZ2052 / Guardrail MODS MIP
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 4: ELINT

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Nov 2017				
Delivery Dates							

Installation Information

Method of Implementation: N/A

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	7 / 6.475	7 / 6.475	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	7 / 6.475	7 / 6.475	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	-	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10 **P-1 Line Item Number / Title:** AZ2001 / Multi Sensor ABN Recon (MIP) **Aggregated Items Title:** Various

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
EMARSS Payloads (MIP)																				
AZ2054 / EMARSS Payloads (MIP)			-	-	0.001	-	-	22.295	-	-	17.097	-	-	3.279	-	-	4.000	-	-	7.279
<i>Secondary Distribution</i>																				
Army			-	-	-	-	-	22.295	-	-	17.097	-	-	3.279	-	-	4.000	-	-	7.279
Subtotal: EMARSS Payloads (MIP)			-	-	0.001	-	-	22.295	-	-	17.097	-	-	3.279	-	-	4.000	-	-	7.279
Total			-	-	0.001	-	-	22.295	-	-	17.097	-	-	3.279	-	-	4.000	-	-	7.279

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

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA6605 / AH-64 MODS
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	144.892	96.877	91.698	117.210	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	144.892	96.877	91.698	117.210	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	144.892	96.877	91.698	117.210	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AH-64 MODS (AA6606) program provides for modernization of the fielded AH-64D/AH-64E Apache fleet. AH-64D/AH-64E is a tandem cockpit, twin engine, single main rotor attack helicopter. The Apache aircraft incorporates the Longbow weapon system and provides the U.S. Army with significant target acquisition and firepower effectiveness, survivability, lethality, and fighting capabilities even during adverse weather conditions. The Apache is equipped with the Fire Control Radar/Radar Frequency Interferometer (FCR/RFI) mission kit and Fire and Forget Longbow HELLFIRE missiles. The Modernized Target Acquisition Designator Sight (MTADS) assembly is an Electro-Optical system that consists of a Day television (DTV), sensor, a Forward Looking Infrared (FLIR) sensor for day and night visibility as well as limited adverse weather operations, a Laser Spot Tracker (LST), and Laser Rangefinder/Designator (LRFD). The Modernized Pilot Night Vision Sensor (M-PNVS) is a FLIR system which allows Nap-of-Earth flight operations at night by the pilot independent of the co-pilot/gunner's FLIR. The Apache is armed with the HELLFIRE Antitank Missile, 2.75 inch rockets and a 30mm gun capable of defeating armor.

The AH-64 Mods Program allows for near-term operationally driven improvements to the Apache fleet, focusing on deployment lessons learned, reliability improvements, and solving obsolescence issues. Improvements will occur to the Airframe, Armament, Communications, Manned / Unmanned Teaming, Navigation, Sensors, Survivability, Support Elements, and Training Systems. Examples of modifications include Selected Component Recapitalization, Airframe and Sensor Obsolescence upgrades, procurement of Modernized Day Sensor Assembly components, initial procurement of Modernized Radio-Frequency Interferometer (M-RFI), Software upgrades, Condition Based Maintenance (CBM), Trainer upgrades, and Computer/Processing and Data Display and Control upgrades. The AH-64D/AH-64E inventory crossover point (approx.400 AH-64D / 400 AH-64E) will occur in 2021. These modernization efforts are required to ensure the Longbow Apache remains a ready and relevant Soldier asset.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	116.153	187.883	238.141	-	238.141	144.892	96.877	91.698
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	116.153	187.883	238.141	-	238.141	144.892	96.877	91.698

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army	Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA6605 / AH-64 MODS

ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA6606 / AH-64 Modifications (Operational & Reliability Improvements and Resolve Obsolescence Issues)				- / 306.757	- / 116.153	- / 187.883	- / 238.141	- / -	- / 238.141
P-40	Total Gross/Weapon System Cost				- / 306.757	- / 116.153	- / 187.883	- / 238.141	- / -	- / 238.141
Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA6606 / AH-64 Modifications (Operational & Reliability Improvements and Resolve Obsolescence Issues)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 144.892	- / 96.877	- / 91.698	- / 117.210	Continuing	Continuing

*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:
 FY18 Base funding in the amount of \$238.141 million supports modification and service life extension efforts for the Airframe, Armament, Mission Command, Sensors, Survivability, Support Elements, Training Systems, and Manned/Unmanned Teaming.

All COMPO 1 Active

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	306.757	116.153	187.883	238.141	-	238.141	-	-	-	-	-	-
<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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airframe includes modifications to the Structural Subsystems, Propulsion/Drive/Rotor Systems, Health Monitoring System (CBM), and Recap Support/Kits. Structural Subsystems modifications include improvements to the assembled structural and aerodynamic components of the air vehicle to include the fuselage and associated manual flight control systems, rotor equipment, landing gear and associated equipment, environmental controls, racks, mounts, intersystem cables and distribution boxes. Propulsion/Drive/Rotor Systems together with Engine Electronic Digital Engine Control Unit (EDECU) and Common Hydro-Mechanical Unit (CHMU) provides the capability to carry a heavier combat payload and allow for enhanced performance in high-altitude, hot climates. Landing Gear improvements (High Performance Shock Struts (HPSS)) will improve the aircraft crash survivability and allows for a heavier aircraft with greater combat loads. The Health Monitoring System is associated with CBM support concept and the expansion of the Modernized Signal Processing Unit (MSPU) capabilities, which will continue to evolve, reduce ownership cost and improve the maintenance posture and burden of the Soldier.

Mission Command includes modifications and/or upgrades to the various Apache processors and displays. Mission Computer / Processing modifications and/or upgrades include improvements to the master data processing unit(s) responsible for coordinating and directing the major avionics mission systems. Displays and Controls modifications and/or upgrades includes improvements to the equipment which presents processed data by specially designed electronic devices through interconnection with computer or component equipment and the associated equipment needed to control the presentation of the necessary flight and tactical information to the crew for efficient management of the aircraft during all segments of the mission profile under day and night during all weather conditions. This equipment includes multifunction displays, control display units, display processors and on-board mission planning systems. Software Upgrades include critical software enhancements that will enable Apache commanders and aircrews to better perform their combat mission.

Sensors include modifications, operational improvements, and/or mitigation of obsolescence issues to the Apache Sensor suite, which includes the MTADS/PNVS, the Modernized Day Sensor Assembly (MDSA), and the Modernized Radar Frequency Interferometer (MRFI) Processor and Receiver. MTADS/PNVS operational and logistics improvements include accelerated application of outstanding Engineering Change Proposals and the sensors overhaul through the Arizona Support Center facility to allow for proper configuration. MDSA is the Modernized Laser Rangefinder/Designator (M-LFRD) which provides enhanced laser ranging, improved target designation, and target tracking capability by holding a stabilized laser beam on a distant stationary or moving point target for highly precise handoff to precision guided weapons. M-LFRD replaces the obsolete Laser Transceiver Unit, which mitigates ongoing obsolescence risks, improves reliability and maintainability, and reduces operations and support costs. MDSA replaces the remaining legacy DSA components, adding a laser pointer, eye safe laser, and high definition color-camera capability. MDSA funding enables software integration, tooling, and test equipment procurement and system production.

Support Elements include the modification and production of those items, which are not part of the aircraft system but are required to maintain, service, or calibrate the aircraft systems or portions of the aircraft system while not directly engaged in the performance of its mission and will not be in the inventory for support of other weapon systems. Post Production Organic support establishes Depot Pilot Programs at Corpus Christi Army Depot (CCAD) and Tobyhanna Army Depot (TYAD) for selected Depot Level Repairables (DLR) as part of the Original Equipment Manufacturer (OEM) to Depot Transition. Post Production Organic Support (PPOS) provides Depot Maintenance Plant Equipment, Special Tools and Test Equipment, labor training and associated technical data for future repairs once the DLR has transitioned to the depot. PPOS improves Repair Turn Around Time and retain depot maintenance capabilities.

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Training Systems include deliverable training services, devices, accessories, aids, equipment, and parts used to facilitate instruction through which personnel will learn to operate and maintain the system with maximum efficiency. Examples include Operator / Maintainer Training (aircraft/classroom), obsolescence and training concurrency to training device systems, and updates to allow individual/team training tasks and collective training. Efforts include the production and upgrade of deliverable training equipment and associated software.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	116.153	187.883	238.141	-	238.141	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	116.153	187.883	238.141	-	238.141	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army											Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AA6605 / AH-64 MODS				Modification Number / Title: AA6606 / AH-64 Modifications				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: Longbow Apache			Modification Type: Operational & Reliability Improvements and Resolve Obsolescence Issues				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
Modification Item 1 of 5: Airframe												
A Kits												
Recurring												
Structural Subsystems	0 / 12.535	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Health Monitoring System	0 / 8.331	0 / 5.421	0 / 7.080	0 / 7.332	0 / 0.000	0 / 7.332	- / -	- / -	- / -	- / -	- / -	- / -
RESET / MEP Kits	0 / 54.518	0 / 5.934	0 / 32.978	0 / 28.173	0 / 0.000	0 / 28.173	- / -	- / -	- / -	- / -	- / -	- / -
Other Support	0 / 1.437	0 / 0.273	0 / 2.208	0 / 1.769	0 / 0.000	0 / 1.769	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 76.821	- / 11.628	- / 42.266	- / 37.274	- / 0.000	- / 37.274	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Airframe	0 / 76.821	0 / 11.628	0 / 42.266	0 / 37.274	0 / 0.000	0 / 37.274	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 2 of 5: Mission Command												
A Kits												
Recurring												
Processors	0 / 32.179	0 / 7.800	0 / 5.544	0 / 5.906	0 / 0.000	0 / 5.906	- / -	- / -	- / -	- / -	- / -	- / -
Displays	0 / 7.186	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Other Support	0 / 2.731	0 / 0.691	0 / 0.306	0 / 0.295	0 / 0.000	0 / 0.295	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 42.096	- / 8.491	- / 5.850	- / 6.201	- / 0.000	- / 6.201	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Mission Command	0 / 42.096	0 / 8.491	0 / 5.850	0 / 6.201	0 / 0.000	0 / 6.201	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 3 of 5: Sensors												
A Kits												
Recurring												
MTADS/PNVS	0 / 14.968	0 / 5.000	0 / 24.989	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
M-RFI	0 / 32.745	27 / 10.593	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Other Support	0 / 6.076	0 / 4.333	0 / 4.550	0 / 7.048	0 / 0.000	0 / 7.048	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 53.789	- / 19.926	- / 29.539	- / 7.048	- / 0.000	- / 7.048	- / -	- / -	- / -	- / -	- / -	- / -
B Kits												
Recurring												
M-LRFD	150 / 49.834	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
M-DSA	0 / 51.156	50 / 70.510	31 / 57.557	95 / 141.448	0 / 0.000	95 / 141.448	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 100.990	- / 70.510	- / 57.557	- / 141.448	- / 0.000	- / 141.448	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Sensors	150 / 154.779	77 / 90.436	31 / 87.096	95 / 148.496	0 / 0.000	95 / 148.496	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: Longbow Apache	Modification Type: Operational & Reliability Improvements and Resolve Obsolescence Issues	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Modification Item 4 of 5: Training Systems												
A Kits												
Recurring												
Operator Devices	0 / 21.455	0 / 0.000	0 / 0.000	0 / 40.052	0 / 0.000	0 / 40.052	- / -	- / -	- / -	- / -	- / -	- / -
Maintainer Devices	0 / 10.636	0 / 0.550	0 / 2.531	0 / 3.926	0 / 0.000	0 / 3.926	- / -	- / -	- / -	- / -	- / -	- / -
Other Support	0 / 0.970	0 / 5.048	0 / 0.140	0 / 2.192	0 / 0.000	0 / 2.192	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 33.061	- / 5.598	- / 2.671	- / 46.170	- / 0.000	- / 46.170	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Training Systems</i>	0 / 33.061	0 / 5.598	0 / 2.671	0 / 46.170	0 / 0.000	0 / 46.170	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 5 of 5: Hellfire Missile Launchers												
A Kits												
Recurring												
Hellfire Missile Launchers	0 / 0.000	0 / 0.000	0 / 50.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 50.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Hellfire Missile Launchers</i>	0 / 0.000	0 / 0.000	0 / 50.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	150 / 306.757	77 / 116.153	31 / 187.883	95 / 238.141	0 / 0.000	95 / 238.141	- / -	- / -	- / -	- / -	- / -	- / -
Installation												
Modification Item 1 of 5: Airframe	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 2 of 5: Mission Command	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 3 of 5: Sensors	150 / 0.000	77 / 0.000	31 / 0.000	95 / 0.000	- / -	95 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 4 of 5: Training Systems	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 5 of 5: Hellfire Missile Launchers	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	154 / 0.000	77 / 0.000	31 / 0.000	95 / 0.000	- / -	95 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	306.757	116.153	187.883	238.141	-	238.141	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 5: Airframe

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Modifications

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 5: Mission Command

Manufacturer Information

Manufacturer Name: Various Manufacturer Location: Various

Administrative Leadtime (in Months): Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: .

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 5: Sensors

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months):	Production Leadtime (in Months): 24

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Jul 2016	Dec 2016	Jan 2018				
Delivery Dates	Jul 2017	Dec 2017	Jan 2019				

Installation Information

Method of Implementation: Modifications

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	150 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	77 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	31 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	95 / 0.000	- / -	95 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	150 / 0.000	77 / 0.000	31 / 0.000	95 / 0.000	- / -	95 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	150	0	0	0	4	16	18	14	6	8	9	14	24	24	24	19	12	12	12	9	3	3	4	5	3	3	5	6	8	95	510
Out	150	0	0	0	0	0	0	0	0	0	0	0	4	16	18	14	6	8	9	14	24	24	24	19	12	12	12	9	3	132	510

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 5: Training Systems

Manufacturer Information

Manufacturer Name: Boeing / LSI Inc	Manufacturer Location: St. Louis, MO / Jacksonville, FL
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Field Retrofits

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA6605 / AH-64 MODS	Modification Number / Title: AA6606 / AH-64 Modifications
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item 5 of 5: Hellfire Missile Launchers

Manufacturer Information

Manufacturer Name: Lockheed Martin Missiles and Fire Control Manufacturer Location: Orlando, Florida

Administrative Leadtime (in Months): Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Armament

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0607137A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	8.557	5.195	4.394	2.618	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	8.557	5.195	4.394	2.618	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	8.557	5.195	4.394	2.618	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The CH-47 Chinook is a twin-turbine, tandem-rotor, heavy lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the mission of the CH-47 is to transport troops (including air assault), supplies, weapons and other cargo in general support operations. The CH-47 is vital to the Overseas Contingency Operations and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The major modifications to the H-47F/G have included the Cargo On/Off Loading System (COOLS) with Ballistic Protection System (BPS), Systems Optimization and Payload Restoration, Improved Troop Seats (ITS), Cargo Platform Health Environment (CPHE), Adjustable Pitch Change Link, Engine Improvements, Aircraft Component Parts-Marking, Safety Mods \$5M or Less, Improved Vibration Control System (IVCS) and Enduring Requirement for Software, Safety and Obsolescence.

The Cargo On/Off Loading System (COOLS) with an under floor Ballistic Protection System (BPS) is a new floor integrated into the aircraft with panels that flip from a flat surface to rollers. This enables units to perform cargo and passenger missions without stopping to re-configure the aircraft to meet diverse mission requirements. The on-ground or in-flight re-configuration takes one Soldier no more than fifteen minutes to complete. The legacy system, Helicopter Internal Cargo Handling System (HICHS), is a cumbersome bolt-on system that is maintenance intensive and requires more than 8 man hours to install.

The CH-47 Light Weight COOLS Ballistic Protection System (LBPS) shall provide more ballistic protection at a lighter weight (aerial density) as compared to the currently qualified and fielded COOLS BPS. Weight reduction per LBPS kit – Threshold: 100 pounds, Objective: 200 pounds. The COOLS LBPS shall be backward compatible with Multi-Year I/II CH-47F Aircraft as an alternate part number, and a unique design of LBPS shall also be qualified to accommodate future Block II H-47 Aircraft airframe configuration changes. Both designs LBPS (Block I/Block II) shall utilize ballistic panels that are ~90-95% common/ interchangeable. From this task order the Contractor shall design and test product; conduct tests required to qualify and obtain airworthiness qualification; prepare, validate and verify technical documentation revisions and provisioning required for the approval of any Engineering Change Proposals (ECPs). Contractor shall support fit checks, flight testing, and Live Fire Test and Evaluation (LFT&E).

Systems Optimization and Payload Restoration is an airframe modification that is intended to increase payload and optimize electrical and fuel systems to decrease overall O&S cost and reduce subsystem weights. The use of newer advanced materials and machining processes will integrate lighter, more reliable materials that will increase reliability and lower aircraft weight. The aircraft electrical system will recover available power capacity while improving power distribution and reliability. Aircraft safety will be enhanced through electrical systems redundancy. Fuel system improvements will reduce parts and increase reliability.

The Improved Troop Seats (ITS) will replace the current H-47 passenger seats, initially designed in the 1960's for the initial fielding of the CH-47A, and do not offer significant crash protection. This effort will qualify and field H-47 improved passenger seats to increase passenger safety during hard or crash landings. The seats are being designed to not only withstand greater impact forces experienced during hard

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft

P-1 Line Item Number / Title:
AA0252 / CH-47 Cargo Helicopter Mods (MYP)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0607137A

Line Item MDAP/MAIS Code: N/A

or crash landings, but also provide an improved restraint harness that will keep the occupants in the seats. The seats are being designed as individual seats that can be installed in any of the 32 seat positions available, providing greater flexibility for configuring the aircraft to support different mission requirements.

Cargo Platform Health Environment (CPHE) is the Cargo PMO CH-47F Health and Usage Monitoring System (HUMS). The system provides the technology and aircraft specific tools to support Condition Based Maintenance (CBM) capability for the CH-47F fleet. CPHE will assist the user to troubleshoot and diagnose the aircraft's current condition, reducing aircrew's maintenance burden and the O&S costs through reductions in required maintenance flights, improved troubleshooting guidance, and improved aircraft reference data. CPHE provides improvements in the following areas: 1) Permanently installs sensors for Rotor Track and Balance; 2) Provides improved drive-train vibration monitoring and troubleshooting; 3) Records additional aircraft parametric data that provides additional information to assist the maintainer in trouble-shooting a signal or component failure on the aircraft; 4) Provides aircraft structural health monitoring which captures aircraft flight hours and accurate aircraft gross weight (within 500 LBS); 5) Provides the capability to automatically download the Engine Control Unit (ECU) reports which eliminates the need to connect a separate computer to get ECU information; 6) CPHE provides a reporting system of A/C data to quantify current A/C health and trends. In the near future, CPHE will allow for automatic population of computerized forms and records.

Adjustable Pitch Change Link is a newly designed and qualified pitch change link with a weather protective boot assembly. The new, user installed link and boot will reduce field labor hours and provide ease of adjustment.

Engine improvements for the T55-GA-714A focus on optimizing operational capability and reliability while decreasing O&S costs. The Electronic Control Unit (ECU) upgrade improves engine communication with the aircraft monitoring systems to increase the aircrew situational awareness and reduce workload. In addition, software enhancements provide the user with advanced troubleshooting capability and enhanced safety. Software upgrades will occur at designated intervals to allow efficient and expedient fielding of any improvements/enhancements. The engine program for Reliability Improvements thru Failure Investigation and Reporting (RIMFIRE) includes the investigation and reporting of engine failure data at the depot which provides key information that helps drive reliability, maintainability and O&S improvements. This information is key to improving the engine and reducing the cost and maintenance burden to the Soldiers. Each engine that is returned to the depot for overhaul goes through a series of visual inspections. The data from these inspections is then analyzed and used to help determine the root cause for the engine failure or the engine return. This effort covers the inspections, data collection, data retention, and data analysis for all T55 engines returned to Corpus Christi Army Depot (CCAD). Installation schedules vary.

Aircraft Component Parts-Marking develops Unique Item Identification (UID) component markings and updates technical data packages for applicable CH-47 components. Also marks components not marked during production using mobile facilities.

CH-47 Safety Mods \$5 million or Less include Improved Engine Air Particle Separator (EAPS) to reduce mission weight and the Full Authority Digital Electronic Control (FADEC) Continuity Test Set (FCTS) to reduce the maintenance burden of the slider when troubleshooting wire/electrical harnesses. Improves operational availability while reducing O&S costs. Installation schedules vary.

The Improved Vibration Control System (IVCS) will provide an active vibration suppression system to minimize CH-47 aircraft vibrations and replaces the Self Tuned Vibration Absorbers (STVAs). The IVCS reduces aircraft weight by approximately 100 lbs., provides vibration dampening equal to/or better than the STVA, and reduces O&S costs and soldier burden.

The Block II Production Induction will provide the induction of the current ECPs into the production line in support of Block II SOA aircraft production beginning in FY18.

Enduring Requirement for Software, Safety and Obsolescence is required to maintain the 47F Avionics and Software System Common Avionics Architecture System (CAAS), the Digital Automatic Flight Control System (DAFCS), the Electronic Control Unit (ECU), and the Cargo Platform Health Environment (CPHE) systems to include required software upgrades, test, logistics and infrastructure of systems.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	90.330	163.943	20.166	-	20.166	8.557	5.195	4.394	2.618
Total:	Quantity	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0607137A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Secondary Distribution	Total Obligation Authority	90.330	163.943	20.166	-	20.166	8.557	5.195	4.394	2.618

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft

P-1 Line Item Number / Title:
AA0252 / CH-47 Cargo Helicopter Mods (MYP)

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0607137A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0252 / CH-47 Cargo Helicopter Mods (Unclassified)				- / 2,929.939	- / 90.330	- / 163.943	- / 20.166	- / -	- / 20.166
P-40	Total Gross/Weapon System Cost				- / 2,929.939	- / 90.330	- / 163.943	- / 20.166	- / -	- / 20.166

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0252 / CH-47 Cargo Helicopter Mods (Unclassified)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 8.557	- / 5.195	- / 4.394	- / 2.618	Continuing	Continuing

*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:
FY 18 Base procurement in the amount of \$20.166 million will be applied toward Software, Safety and Obsolescence issues critical to facilitate continuing operation of the CH-47 fleet and the procurement and of the Improved Troop Seats (ITS) increasing passenger safety to withstand greater impact forces and provide an improved restraint harness.

In accordance with Section 1815 of the 2008 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-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) : _____ **MDAP/MAIS Code:** _____

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,929.939	90.330	163.943	20.166	-	20.166	-	-	-	-	-	-

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The major modifications to the H-47F/G have included the Cargo On/Off Loading System (COOLS) with Ballistic Protection System (BPS) and Nonrecurring to provide more ballistic protection at a Lighter Weight, Systems Optimization and Payload restoration, Improved Troop Seats (ITS), Cargo Platform Health Environment (CPHE), Adjustable Pitch Change Link, Engine Improvements, Aircraft Component Parts-Marking, Safety Mods \$5 million or Less, Improved Vibration Control System (IVCS) and Enduring Requirement for Software, Safety and Obsolescence.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	90.330	163.943	20.166	-	20.166	-	-	-	-
Total:									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	90.330	163.943	20.166	-	20.166	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)					Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-47				Modification Type: Unclassified				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
Modification Item 1 of 11: Cargo On/Off Loading System (COOLS) and COOLS BPS													
A Kits													
Recurring													
Cargo Handling Floor System	258 / 54.411	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Ballistic Protection System (BPS)	146 / 33.768	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
PM Support	0 / 4.408	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Cargo Handling Floor System (OCO)	26 / 29.300	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
PM Support (OCO)	0 / 8.010	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 129.897	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Cargo On/Off Loading System (COOLS) and COOLS BPS	430 / 129.897	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 2 of 11: Systems Optimization and Payload Restoration													
A Kits													
Recurring													
PM Support	0 / 2.262	0 / 2.677	0 / 2.914	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 2.262	- / 2.677	- / 2.914	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
NRE	0 / 45.247	0 / 53.541	0 / 58.277	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Non-Recurring	- / 45.247	- / 53.541	- / 58.277	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Systems Optimization and Payload Restoration	0 / 47.509	0 / 56.218	0 / 61.191	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 3 of 11: Improved Troop Seats (ITS)													
A Kits													
Recurring													
Installation Kits	0 / 0.000	0 / 0.000	0 / 0.000	200 / 0.655	0 / 0.000	200 / 0.655	- / -	- / -	- / -	- / -	- / -	- / -	
PM Support	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.699	0 / 0.000	0 / 0.699	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.354	- / 0.000	- / 1.354	- / -	- / -	- / -	- / -	- / -	- / -	
B Kits													
Recurring													
Seats SS (31 seats per SS)	0 / 0.000	0 / 0.000	0 / 0.000	222 / 13.324	0 / 0.000	222 / 13.324	- / -	- / -	- / -	- / -	- / -	- / -	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)					Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-47				Modification Type: Unclassified				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 13.324	- / 0.000	- / 13.324	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Improved Troop Seats (ITS)</i>	0 / 0.000	0 / 0.000	0 / 0.000	422 / 14.678	0 / 0.000	422 / 14.678	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 4 of 11: Cargo Platform Health Environment (CPHE)													
A Kits													
Recurring													
Kits Type 1	21 / 11.222	8 / 4.357	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Kits Type 2	15 / 2.454	6 / 1.055	20 / 3.488	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
CPHE Software Upgrade	0 / 0.474	0 / 0.162	0 / 0.640	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Services	0 / 3.771	0 / 1.904	0 / 3.100	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
PM Support	0 / 0.747	0 / 0.321	0 / 0.364	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 18.668	- / 7.799	- / 7.592	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
NRE	0 / 6.750	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 6.750	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Cargo Platform Health Environment (CPHE)</i>	36 / 25.418	14 / 7.799	20 / 7.592	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 5 of 11: Adjustable Pitch Change Link													
A Kits													
Recurring													
Pitch Change Links	0 / 0.000	0 / 0.000	30 / 2.311	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
PM Support	0 / 0.042	0 / 0.000	0 / 0.116	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.042	- / 0.000	- / 2.427	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
NRE	0 / 5.733	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Non-Recurring</i>	- / 5.733	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Adjustable Pitch Change Link</i>	0 / 5.775	0 / 0.000	30 / 2.427	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 6 of 11: Engine Improvements													
A Kits													
Recurring													
T55 Engine Control Unit Prog (ECU)	667 / 45.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
New Engines	1,250 / 2,495.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)						Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: CH-47				Modification Type: Unclassified				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
P3 Check Valve	373 / 4.900	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Next Generation Torque System	404 / 14.500	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Logistics	0 / 39.953	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
ECU Upgrade	0 / 3.396	0 / 1.300	0 / 1.064	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
RIMFIRE	0 / 1.288	0 / 0.431	0 / 0.440	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
PM Admin Support	0 / 4.433	0 / 0.105	0 / 0.075	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 2,608.470	- / 1.836	- / 1.579	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
ECP NRE/Incorporation	0 / 0.690	0 / 0.370	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 0.690	- / 0.370	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Engine Improvements	2,694 / 2,609.160	0 / 2.206	0 / 1.579	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 7 of 11: Aircraft Component Parts-Marking (UID)												
A Kits												
Non-Recurring												
Component Markings	0 / 28.600	0 / 1.556	0 / 4.050	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 28.600	- / 1.556	- / 4.050	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Aircraft Component Parts-Marking (UID)	0 / 28.600	0 / 1.556	0 / 4.050	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 8 of 11: CH-47 Safety Mods \$5M or Less												
A Kits												
Recurring												
Voltage Standing Wave Ratio (VSWR)	0 / 2.239	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FCTS (FADEC Continuity Test Set)	0 / 2.015	0 / 2.094	0 / 2.321	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Misc Mods	0 / 15.592	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Swashplate Assembly	0 / 0.575	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Hook Load Measuring System	0 / 10.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Engine Air Particle Separator (EAPS)	0 / 13.226	0 / 4.431	0 / 3.538	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
PM Support	0 / 10.883	0 / 0.326	0 / 0.293	0 / 0.274	0 / 0.000	0 / 0.274	- / -	- / -	- / -	- / -	- / -	- / -
Frangible Fuel Fitting	0 / 10.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 64.530	- / 6.851	- / 6.152	- / 0.274	- / 0.000	- / 0.274	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)						Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: CH-47				Modification Type: Unclassified				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Critical Safety Issues	0 / 0.000	0 / 0.000	0 / 0.000	0 / 5.214	0 / 0.000	0 / 5.214	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 5.214	- / 0.000	- / 5.214	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: CH-47 Safety Mods \$5M or Less</i>	0 / 64.530	0 / 6.851	0 / 6.152	0 / 5.488	0 / 0.000	0 / 5.488	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 9 of 11: Improved Vibration Control System (IVCS)												
A Kits												
Recurring												
Kits	0 / 0.000	35 / 7.549	140 / 29.958	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
PM Support	0 / 0.000	0 / 0.378	0 / 1.510	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.000	- / 7.927	- / 131.468	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Improved Vibration Control System (IVCS)</i>	0 / 0.000	35 / 7.927	140 / 31.468	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 10 of 11: Light Weight COOLS Ballistic Protection Sys LBPS												
A Kits												
Non-Recurring												
LBPS	0 / 0.000	0 / 0.000	1 / 6.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
PM Support	0 / 0.000	0 / 0.000	0 / 0.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 6.300	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Light Weight COOLS Ballistic Protection Sys LBPS</i>	0 / 0.000	0 / 0.000	1 / 6.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 11 of 11: Blk II Production Induction												
A Kits												
Non-Recurring												
Blk II Production Induction	0 / 0.000	0 / 0.000	1 / 32.860	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 32.860	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Blk II Production Induction</i>	0 / 0.000	0 / 0.000	1 / 32.860	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	3,160 / 2,910.889	49 / 82.557	192 / 153.619	422 / 20.166	0 / 0.000	422 / 20.166	- / -	- / -	- / -	- / -	- / -	- / -
Installation												
Modification Item 1 of 11: Cargo On/Off Loading System (COOLS) and COOLS BPS	164 / 12.048	50 / 3.774	50 / 3.745	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 3 of 11: Improved Troop Seats (ITS)	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: CH-47	Modification Type: Unclassified	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Modification Item 4 of 11: Cargo Platform Health Environment (CPHE)	75 / 3.702	73 / 3.936	68 / 6.327	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 8 of 11: CH-47 Safety Mods \$5M or Less	35 / 3.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 9 of 11: Improved Vibration Control System (IVCS)	0 / 0.000	35 / 0.063	140 / 0.252	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 10 of 11: Light Weight COOLS Ballistic Protection Sys LBPS	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 11 of 11: BIK II Production Induction	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	<i>274 / 19.050</i>	<i>158 / 7.773</i>	<i>260 / 10.324</i>	<i>0 / 0.000</i>	<i>- / -</i>	<i>0 / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>
Total												
Total Cost (Procurement + Support + Installation)	2,929.939	90.330	163.943	20.166	-	20.166	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 11: Cargo On/Off Loading System (COOLS) and COOLS BPS

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 1

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Apr 2016	Apr 2017					
Delivery Dates	Jun 2016	Jun 2017					

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	164 / 12.048	50 / 3.774	50 / 3.745	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	164 / 12.048	50 / 3.774	50 / 3.745	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	164	12	12	13	13	12	12	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	308
Out	164	12	12	13	13	12	12	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	308

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)			Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 2 of 11: Systems Optimization and Payload Restoration							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 11: Improved Troop Seats (ITS)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 8

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2017				
Delivery Dates			Aug 2018				

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50	50	18	20	20	0	16	16	18	0	10	10	0	0	180	508
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	50	50	18	20	20	0	16	16	18	0	10	190	508

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 11: Cargo Platform Health Environment (CPHE)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2016	Jan 2017					
Delivery Dates	Sep 2016	Jul 2017					

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	75 / 3.702	73 / 3.936	44 / 4.093	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	9 / 0.838	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	15 / 1.396	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	75 / 3.702	73 / 3.936	68 / 6.327	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	75	18	18	18	19	13	13	20	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161	377
Out	75	18	18	18	18	18	19	13	13	20	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	377

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)			Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 5 of 11: Adjustable Pitch Change Link							
Manufacturer Information							
Manufacturer Name: Boeing				Manufacturer Location: Ridley Park, PA			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): User Installed					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)			Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 6 of 11: Engine Improvements							
Manufacturer Information							
Manufacturer Name: Honeywell Inc				Manufacturer Location: Phoenix, AZ			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)			Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 7 of 11: Aircraft Component Parts-Marking (UID)							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Various					Installation Quantity: 0		

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 8 of 11: CH-47 Safety Mods \$5M or Less

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	35 / 3.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	35 / 3.300	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	35	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	35	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item 9 of 11: Improved Vibration Control System (IVCS)

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park PA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 6

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015	Oct 2016					
Delivery Dates	Jun 2016	Apr 2017					

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	35 / 0.063	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	140 / 0.252	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	35 / 0.063	140 / 0.252	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	17	18	0	0	35	35	35	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	445	620
Out	-	0	0	17	18	0	0	35	35	35	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	445	620

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 10 of 11: Light Weight COOLS Ballistic Protection Sys LBPS

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 36

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Jun 2017					
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0252 / CH-47 Cargo Helicopter Mods (MYP)	Modification Number / Title: AA0252 / CH-47 Cargo Helicopter Mods

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 11 of 11: Blk II Production Induction

Manufacturer Information

Manufacturer Name: Boeing	Manufacturer Location: Ridley Park, PA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 36

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Aug 2017					
Delivery Dates							

Installation Information

Method of Implementation: Various

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	1 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02111 / GRCS SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	4.019	4.055	5.514	-	5.514	5.622	5.727	2.976	3.056	-	30.969
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	4.019	4.055	5.514	-	5.514	5.622	5.727	2.976	3.056	-	30.969
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	4.019	4.055	5.514	-	5.514	5.622	5.727	2.976	3.056	-	30.969

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Description:
The Guardrail Common Sensor (GRCS) is a RC-12 fixed-wing, airborne, Signals Intelligence (SIGINT) and Imagery Intelligence (IMINT) collection and precision targeting location system. It provides a persistent capability to detect, locate and classify/identify high value targets with a relevant degree of timeliness and accuracy. GRCS is assigned to two (2) U.S. Army Intelligence and Security Command's Aerial Exploitation Battalions, providing Aerial Intelligence, Surveillance and Reconnaissance (AISR) support to combatant commanders. In accordance with the Army's AISR 2020 strategy, the Army's Acquisition Objective/Army's Procurement Objective is 14 RC-12X+; seven (7) will be fielded to 3rd MI; and seven (7) will be fielded to the 204th MI. Additionally, there are five (5) trainers to support Force Generation.

This funding line supports the Army Fixed Wing aircraft in support of the Guardrail Common Sensor (GRCS) RC-12X aircraft, Intelligence, Surveillance and Reconnaissance (ISR) mission. It provides for the following: the procurement of replacement and spare engines; procurement and associated testing of civil and military aircraft equipment, and future integration efforts. These modifications address all Department of Defense (DoD) mandated safety equipment to current and evolving international and Army Standards. These modifications ensure continued worldwide deployment capability and safe operations. Lastly, this line supports future mods in service.

The overall GRCS procurement/modernization efforts are found in the following two lines: AZ2052 Guardrail Payloads (MIP) and A02111 GRCS SEMA MODS (MIP). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne intelligence systems to Program Executive Office for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.019	4.055	5.514	-	5.514	5.622	5.727	2.976	3.056
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	4.019	4.055	5.514	-	5.514	5.622	5.727	2.976	3.056

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft		P-1 Line Item Number / Title: A02111 / GRCS SEMA Mods (MIP)
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
Justification: FY18 base procurement funding in the amount of \$5.514 million will support six (6) aircraft military/civilian modifications to include: Automatic Dependent Surveillance- Broadcast, (ADS-B) to provide digital interfacing for aircraft positioning; Enhanced Ground Proximity Warning System (EGPWS) which is a safety upgrade for take off and landing, beyond line of sight communication with automatic flight following; and APX-119 Mode 5 to establish the ability to Identify Friend or Foe (IFF) and any associated sparing. This line also funds the procurement and integration of ARC 201 Single Channel Ground Air Radio Systems (SINCGARS) to address obsolescence issues. All COMPO 1. In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02110 / ARL SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	48.302	6.793	11.650	-	11.650	7.929	6.973	8.503	10.987	-	101.137
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	48.302	6.793	11.650	-	11.650	7.929	6.973	8.503	10.987	-	101.137
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	48.302	6.793	11.650	-	11.650	7.929	6.973	8.503	10.987	-	101.137

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Airborne Reconnaissance Low - Enhanced (ARL-E) is a worldwide self-deployable airborne Intelligence Surveillance Reconnaissance (ISR) system designed for timely, accurate, assured support to tactical forces over the full spectrum of operations. This system is a De Havilland DHC-8 aircraft replacing the DHC-7 IAW the Aerial ISR (AISR) 2020 Strategy. ARL-E will enhance the ARL-M sensor capability sets through the procurement of new and refurbished sensors to meet the ARL-E Capabilities Production Document (CPD) requirements. It provides a persistent capability to include: Broad-Area Surveillance and/or Focused Stare on Target Areas of Interest (Point or Objective Targets), Electro-Optical/Infrared (EO/IR)/Full-Motion Video (FMV) , Multi-Mode Radar, Robust Communications Intelligence (COMINT), on-Board Collection, Analysis, Sensor Cross Cue and dissemination through Distributed Common Ground System-Army (DCGS-A) Enabled workstations. ARL-E will be assigned to the U.S. Army Intelligence and Security Command's Aerial ISR Brigade providing AISR support to combatant commanders. For the overall system, the Army Acquisition Objective and the Army Procurement Objective, is nine (9). The Mission Equipment Package (MEP) objective is eight (8).

The funding line supports the conversion of Government Owned Contractor Operated (GOCO) Quick Reaction Capability (QRC) DeHavilland (DHC) 8-315 Aerial Intelligence Surveillance & Reconnaissance (AISR) aircraft systems, four (4) Saturn Arch (SA) and two (2) Desert Owl (DO), and the conversion of three (3) DHC 8-315 commercially procured aircraft beyond FY19. It provides for the following: the procurement of replacement and spare engines; procurement and associated testing of civil and military aircraft equipment, and future integration efforts. These modifications address all Department of Defense (DoD) mandated safety equipment to current and evolving international and Army Standards. These modifications ensure continued worldwide deployment capability and safe operations. Lastly, this line supports future mods in service.

Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne Intelligence systems to Program Executive Officer for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors. This budget line provides for aircraft modification and AZ2050 provides for sensors.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	48.302	6.793	11.650	-	11.650	7.929	6.973	8.503	10.987
Total:									
Quantity	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02110 / ARL SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Secondary Distribution	Total Obligation Authority	48.302	6.793	11.650	-	11.650	7.929	6.973	8.503	10.987

Justification:
 The FY 2018 base procurement funding in the amount of \$11.650 million will be utilized in the following manner: to verify aircraft performance handling qualities upon completion of outer mold line modifications; validate the effectiveness of the aircraft survivability equipment system modification; provide funding for Army Engineering Directorate and Aviation Flight Test Directorate support for performance analysis; and continued buildup of DeHavilland 8-315 essential spares components in preparation of FY 19 fielding activities.

All COMPO 1 Active. In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	13.669	55.897	15.279	36.000	51.279	21.139	4.416	3.011	2.282	-	151.693
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	13.669	55.897	15.279	36.000	51.279	21.139	4.416	3.011	2.282	-	151.693
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	13.669	55.897	15.279	36.000	51.279	21.139	4.416	3.011	2.282	-	151.693

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. It provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS will be assigned to the U.S. Army Intelligence and Security Command's Aerial Exploitation Battalions, providing Aerial Intelligence, Surveillance and Reconnaissance support to combatant commanders. The Army Acquisition Objective for EMARSS is 36 systems, with an Army Procurement Objective of 24, to include the following variants: eight (8) EMARSS-G (Geo-INT); four (4) EMARSS-V (Vehicle and Dismount Exploitation Radar, VaDER); eight (8) EMARSS-M (Multi-INT); and four (4) EMARSS-S (SIGINT).

The budget line supports the conversion of Special Electronic Mission Aircraft (SEMA) Government-owned Quick Reaction Capability (QRC) Aerial Intelligence Surveillance & Reconnaissance (AISR) systems: Liberty Project Aircraft (LPA), Constant Hawk (CH) and Tactical Operations (TACOP), VaDER (Vehicle and Dismount exploitation Radar) into Enhanced Medium Altitude Reconnaissance and Surveillance Systems (EMARSS) Capabilities Production Document (CPD) compliant systems. It provides for the following: the procurement of replacement and spare engines; procurement and associated testing of civil and military aircraft equipment; and integration/installation of ISR Mission Equipment Package (MEP). These modifications address all Department of Defense (DoD) mandated safety equipment to current and evolving international and Army Standards. These modifications ensure continued worldwide deployment capability and safe operations. Lastly, this line supports future mods in service.

The overall EMARSS procurement/modernization efforts are found in the following two lines; AZ2054 EMARSS Payloads (Project Manager Sensors - Aerial Intelligence) and A02112 EMARSS SEMA Mods (Fixed Wing Project Office). Separate funding lines support the Army Acquisition Executive's directive, codified in the October 28, 2011 memorandum, to assign overall acquisition lead for manned airborne intelligence systems to Program Executive Officer for Aviation; and overall sensor, processing, exploitation, and dissemination responsibilities to Program Executive Officer for Intelligence, Electronic Warfare, and Sensors.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	13.669	55.897	15.279	36.000	51.279	21.139	4.416	3.011	2.282
Total:									
Quantity	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Secondary Distribution	Total Obligation Authority	13.669	55.897	15.279	36.000	51.279	21.139	4.416	3.011	2.282

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A02112 / EMARSS SEMA Modifications (Unclassified)				- / -	- / 13.669	- / 55.897	- / 15.279	- / 36.000	- / 51.279
P-40	Total Gross/Weapon System Cost				- / -	- / 13.669	- / 55.897	- / 15.279	- / 36.000	- / 51.279

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A02112 / EMARSS SEMA Modifications (Unclassified)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 21.139	- / 4.416	- / 3.011	- / 2.282	- / -	- / 151.693

*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:

FY18 Base Procurement dollars in the amount of \$15.279 million supports the conversion of one (1) U.S. Air Force Liberty Project Aircraft (LPA) to an EMARSS-M Capabilities Production Document (CPD) compliant configuration.

FY18 OCO Procurement dollars in the amount of \$36.000 million are required for the modification of two (2) U.S. Air Force Liberty Project Aircraft (LPA) as manned Multi-Intelligence Airborne Intelligence Surveillance and Reconnaissance (AISR) systems for future support to operations in theater. Specifically, funds provide integration of upgraded mission equipment package (MEP), thus bringing the QRC system into compliance with Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) Capability Production Document compliant variant (i.e. program of record configuration). Current plan, as of the date of this form, is to convert two (2) QRC into EMARSS CPD compliant configuration.

All COMPO 1 Active. In accordance with Section 1815 of the FY 2008 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-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)	Modification Number / Title: A02112 / EMARSS SEMA Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	13.669	55.897	15.279	36.000	51.279	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	13.669	55.897	15.279	36.000	51.279	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	13.669	55.897	15.279	36.000	51.279	-	-	-	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The budget line supports the conversion of Special Electronic Mission Aircraft (SEMA) Government-owned Quick Reaction Capability (QRC) Aerial Intelligence Surveillance & Reconnaissance (AISR) systems: Liberty Project Aircraft (LPA), Constant Hawk (CH) and Tactical Operations (TACOP), VaDER (Vehicle and Dismount exploitation Radar) into Enhanced Medium Altitude Reconnaissance and Surveillance Systems (EMARSS) Capabilities Production Document (CPD) compliant systems. It provides for the following: the procurement of replacement and spare engines; procurement and associated testing of civil and military aircraft equipment; and integration of ISR Mission Equipment Package (MEP). These modifications address all Department of Defense (DoD) mandated safety equipment to current and evolving international and Army Standards. These modifications ensure continued worldwide deployment capability and safe operations. Lastly, this line supports future mods in service.

The APO quantity of 24 are funded as follows: Aerial Common Sensor (ACS) (MIP) (A02005) FY14-FY16 modified 16. EMARSS SEMA Mods (MIP) (A02112) and EMARSS Payloads (MIP) (AZ2054) FY17 forward, will modify the remaining 8.

The below input/output schedule reflects a combined effort between AZ2054 (PM SAI) and A02112 (FW PO).

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.669	55.897	15.279	36.000	51.279	-	-	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.669	55.897	15.279	36.000	51.279	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)						Modification Number / Title: A02112 / EMARSS SEMA Modifications			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EMARSS				Modification Type: Unclassified				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: EMARSS SEMA Modifications</i>													
A Kits													
Recurring													
PMO and SETA Support	0 / 0.000	0 / 4.676	0 / 2.182	0 / 1.528	0 / 0.000	0 / 1.528	- / -	- / -	- / -	- / -	- / -	- / -	
GFE/ Initial Spares	0 / 0.000	0 / 0.330	0 / 1.575	0 / 0.528	0 / 0.000	0 / 0.528	- / -	- / -	- / -	- / -	- / -	- / -	
Contractor Testing	0 / 0.000	0 / 0.255	0 / 1.325	0 / 0.200	0 / 0.408	0 / 0.608	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Recurring</i>	- / 0.000	- / 5.261	- / 5.082	- / 2.256	- / 0.408	- / 2.664	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: EMARSS SEMA Modifications</i>	0 / 0.000	0 / 5.261	0 / 5.082	0 / 2.256	0 / 0.408	0 / 2.664	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Procurement, All Modification Items</i>	0 / 0.000	0 / 5.261	0 / 5.082	0 / 2.256	0 / 0.408	0 / 2.664	- / -	- / -	- / -	- / -	- / -	- / -	
Installation													
<i>Modification Item 1 of 1: EMARSS SEMA Modifications</i>													
<i>Subtotal: Installation</i>	- / -	2 / 8.408	5 / 50.815	1 / 13.023	2 / 35.592	3 / 48.615	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	-	13.669	55.897	15.279	36.000	51.279	-	-	-	-	-	-	

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A02112 / EMARSS SEMA Mods (MIP)	Modification Number / Title: A02112 / EMARSS SEMA Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: EMARSS SEMA Modifications

Manufacturer Information

Manufacturer Name: L3 MID	Manufacturer Location: Greenville, TX
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015						
Delivery Dates		Jun 2017	Jun 2018				

Installation Information

Method of Implementation: EMARSS Modifications

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	2 / 8.408	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	0 / 0.000	5 / 50.815	1 / 13.023	2 / 35.592	3 / 48.615	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 8.408	5 / 50.815	1 / 13.023	2 / 35.592	3 / 48.615	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	2	0	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	2	0	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0270 / Utility/Cargo Airplane Mods
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	273.259	16.166	17.526	57.737	-	57.737	25.082	15.470	14.692	16.909	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	273.259	16.166	17.526	57.737	-	57.737	25.082	15.470	14.692	16.909	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	273.259	16.166	17.526	57.737	-	57.737	25.082	15.470	14.692	16.909	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The budget line supports the updates and modernization of Army fixed wing aircraft communication, navigation, surveillance, survivability equipment, and Department of Defense (DoD) mandated safety equipment to current and evolving international and Army standards. The budget line provides for the procurement of replacement and spare engines for fixed wing aircraft. In addition, it provides for the procurement and associated testing of civil and military aircraft modification equipment. This budget line will also be used to modify fixed wing aircraft to include Engineer, Furnish and Install (EF&I) of modifications as a complete contractual effort. It also leverages Federal Aviation Administration (FAA) supplemental type certificates (STC) that are already in existence and applies STCs to aircraft modifications. These modifications ensure continued worldwide deployment capability and safe operations.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.809	7.421	21.686	-	21.686	7.414	9.474	6.919
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	7.357	5.053	19.551	-	19.551	8.110	2.398	3.274
AR	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	5.052	16.500	-	16.500	9.558	3.598	4.499
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	16.166	17.526	57.737	-	57.737	25.082	15.470	14.692

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0270 / Utility/Cargo Airplane Mods
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0270 / Fixed Wing Aircraft Modifications (Rationalization, Standardization, Interoperability, Compatibility, Simplification)				- / 273.259	- / 16.166	- / 17.526	- / 57.737	- / -	- / 57.737
P-40	Total Gross/Weapon System Cost				- / 273.259	- / 16.166	- / 17.526	- / 57.737	- / -	- / 57.737

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0270 / Fixed Wing Aircraft Modifications (Rationalization, Standardization, Interoperability, Compatibility, Simplification)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 25.082	- / 15.470	- / 14.692	- / 16.909	Continuing	Continuing

*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:
 FY 2018 Base procurement dollars in the amount of \$57.737 million supports required Communications, Navigation, and Surveillance modifications mandated by the Federal Aviation Administration mandated to be complete prior to the end of calendar year 2019 in order to be Global Airspace Traffic Management (GATM) compliant.

In addition, equipment included in the modifications will enhance the safety of passengers and crew. The upgrades will also permit the Army fixed wing aircraft to operate in compliance with other existing and emerging regulations. As requirement for new avionics equipment continue, aircraft delays and airspace exclusions are likely for aircraft not properly equipped. Upgrade of communication and navigation systems will enhance reliability and maintainability, thereby improving aircraft availability for mission requirements. The associated aircraft modifications will assure worldwide deployability for those required to deploy.

Comments:
 In accordance with Section 1815 of the FY 2008 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.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0270 / Utility/Cargo Airplane Mods	Modification Number / Title: AA0270 / Fixed Wing Aircraft Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	273.259	16.166	17.526	57.737	-	57.737	-	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	273.259	16.166	17.526	57.737	-	57.737	-	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	273.259	16.166	17.526	57.737	-	57.737	-	-	-	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The budget line supports the updates and modernization of Army fixed wing aircraft communication, navigation, surveillance, survivability equipment, and Department of Defense (DoD) mandated safety equipment to current and evolving international and Army standards. The budget line provides for the procurement of replacement and spare engines for fixed wing aircraft. In addition, it provides for the procurement and associated testing of civil and military aircraft modification equipment including integration of Intelligence, Surveillance and Reconnaissance (ISR) Mission Equipment Packages (MEP). This budget line will also be used to modify fixed wing aircraft to include Engineer, Furnish and Install (EF&I) of modifications as a complete contractual effort. It also leverages Federal Aviation Administration (FAA) supplemental type certificates (STC) that are already in existence and applies STCs to aircraft modifications. These modifications ensure continued worldwide deployment capability and safe operations.

FY 2018 Base procurement dollars in the amount of \$57.737 million support aircraft modifications to Communications, Navigation, and Surveillance (CNS) and Aircraft Survivability Equipment (ASE) that meets current and future air traffic management requirements.

In addition, equipment included in the modifications will enhance the safety of passengers and crew. The upgrades will also permit the Army fixed wing aircraft to operate in compliance with other existing and emerging regulations. As requirement for new avionics equipment continue, aircraft delays and airspace exclusions are likely for aircraft not properly equipped. Upgrade of communication and navigation systems will enhance reliability and maintainability, thereby improving aircraft availability for mission requirements. The associated aircraft modifications will assure worldwide deployability for those required to deploy.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	8.809	7.421	21.686	-	21.686	-	-	-	-
ANG									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	7.357	5.053	19.551	-	19.551	-	-	-	-
AR									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	-	5.052	16.500	-	16.500	-	-	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	16.166	17.526	57.737	-	57.737	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0270 / Utility/Cargo Airplane Mods	Modification Number / Title: AA0270 / Fixed Wing Aircraft Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: All series Army fixed wing aircraft	Modification Type: Rationalization, Standardization, Interoperability, Compatibility, Simplification	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: Fixed Wing Aircraft Modifications												
A Kits												
Recurring												
Installation Kits	244 / 163.955	20 / 9.619	7 / 10.428	47 / 34.642	0 / 0.000	47 / 34.642	- / -	- / -	- / -	- / -	- / -	- / -
Data	0 / 1.367	0 / 0.081	0 / 0.088	0 / 0.289	0 / 0.000	0 / 0.289	- / -	- / -	- / -	- / -	- / -	- / -
Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 3.464	0 / 0.000	0 / 3.464	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 165.322	- / 9.700	- / 10.516	- / 38.395	- / 0.000	- / 38.395	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Fixed Wing Aircraft Modifications	244 / 165.322	20 / 9.700	7 / 10.516	47 / 38.395	0 / 0.000	47 / 38.395	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Procurement, All Modification Items	244 / 165.322	20 / 9.700	7 / 10.516	47 / 38.395	0 / 0.000	47 / 38.395	- / -	- / -	- / -	- / -	- / -	- / -

Installation

Modification Item 1 of 1: Fixed Wing Aircraft Modifications	244 / 107.937	20 / 6.466	7 / 7.010	47 / 19.342	- / -	47 / 19.342	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Installation	244 / 107.937	20 / 6.466	7 / 7.010	47 / 19.342	- / -	47 / 19.342	- / -	- / -	- / -	- / -	- / -	- / -

Total

Total Cost (Procurement + Support + Installation)	273.259	16.166	17.526	57.737	-	57.737	-	-	-	-	-	-
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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0270 / Utility/Cargo Airplane Mods	Modification Number / Title: AA0270 / Fixed Wing Aircraft Modifications

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 1: Fixed Wing Aircraft Modifications

Manufacturer Information

Manufacturer Name: Multiple Commercial Vendors	Manufacturer Location: TBD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 6

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015	Dec 2016	Dec 2017				
Delivery Dates	Jun 2016	Jun 2017	Jun 2018				

Installation Information

Method of Implementation: Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	244 / 107.937	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	20 / 6.466	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	7 / 7.010	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	47 / 19.342	- / -	47 / 19.342	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	244 / 107.937	20 / 6.466	7 / 7.010	47 / 19.342	- / -	47 / 19.342	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	244	5	5	5	5	1	2	2	2	11	12	12	12	7	7	8	8	4	4	4	5	3	4	4	4	4	4	4	4	0	396
Out	239	2	5	5	5	5	1	2	2	2	11	12	12	12	7	7	8	8	4	4	4	5	3	4	4	4	4	4	4	7	396

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0480 / Utility Helicopter Mods
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,370.993	16.893	10.807	5.900	-	5.900	5.903	5.901	-	-	-	1,416.397
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,370.993	16.893	10.807	5.900	-	5.900	5.903	5.901	-	-	-	1,416.397
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,370.993	16.893	10.807	5.900	-	5.900	5.903	5.901	-	-	-	1,416.397

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Utility Helicopter Mods include modifications to the UH-60 Black Hawk and the UH-72A Lakota helicopters. The UH-60 Black Hawk helicopter is the Army's utility helicopter in the future force. It is a twin engine, single rotor, four bladed utility helicopter used for air assault, general support, command & control, and aero-medical evacuations (MEDEVAC). The UH-60 is joint force capable, providing 24 hour/day support including operations at night and in adverse weather conditions. The UH-60 is designed to carry a crew of four plus eleven combat equipped troops or an external load up to 9,000 pounds. The UH-60 Black Hawk was fielded in 1978 as a replacement for the UH-1. From 1978 to 1988, UH-60As were produced. In 1989 production of UH-60Ls with improved engines and drive train began. In 2007, full rate production of UH-60Ms began which provided a digital cockpit, digital Flight Management System (FMS), improved engine, and wide-cord main rotor blades. The UH-72A Lakota helicopter provides general aviation support for aviation units in the active and reserve components.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	16.893	10.807	5.900	-	5.900	5.903	5.901	-	-
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	16.893	10.807	5.900	-	5.900	5.903	5.901	-	-

Justification:

FY18 Base procurement dollars in the amount of \$5.900 million will procure Enhanced Ballistics Armor Protection Systems (EBAPS). EBAPS provides ballistic protection to the UH-60 fielded fleet through the use of ballistic blankets or other similar protective device. Because of low altitude and low airspeed tactical flight profiles, Black Hawk helicopters, crews, passengers, and cargo are susceptible to damage and injuries from small arms fire. A mission flexible ballistic protection system is needed to protect crews, passengers, cargo, and critical aircraft components from small arms damage. The UH-60 A to L Conversion program expands the current UH-60 A to A recapitalization/rebuild. Effective in FY16 all A to L conversions and UH-60L Digital, now designated as UH-60V, conversions will be procured under line A05009. Prior to FY16 the funding for UH-60 A to L conversions was conducted under this line AA0492.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft		P-1 Line Item Number / Title: AA0480 / Utility Helicopter Mods
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
In accordance with Section 1815 of the FY 2008 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-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0712 / Network And Mission Plan
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102	143.561	119.839	134.046	98.969	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102	143.561	119.839	134.046	98.969	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102	143.561	119.839	134.046	98.969	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Network and Mission Plan budget line includes the Aviation Mission Planning System (AMPS), the Improved Data Modem (IDM), the Aviation Data Exploitation Capability (ADEC), and the Aircraft Notebook (ACN).

The AMPS provides automated mission planning, risk assessment and transfer of mission data to Army Aviation platforms in support of Mission Command functions within Aviation units. The AMPS system supports pre-mission planning and rehearsal, including route planning, communications planning, and aircraft configuration. AMPS has the ability to generate mission data in either hard copy or electronic formats. The electronic formats are loaded onto the aircraft platforms utilizing a Data Transfer Device initializing the communication, navigation, and weapons systems on the aircraft. Supported aircraft include the AH-64D/E, CH-47D/F, UH-60A/L/M/Q, HH-60L, and LUH-72. Support for the Enhanced Medium Altitude Reconnaissance Surveillance System (EMARSS), UH-60V, AH-64E V6, and Unmanned Aircraft Systems (UAS) in the U.S. baseline will be provided in a future release. The AMPS program includes management of the Commander's Aviation Risk Tool (CART) and the Centralized Aviation Flight Records System (CAFRS). The AMPS hardware is replaced after five years of use to accommodate rapid commercial technology changes.

The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to the Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. The IDM provides connectivity to multiple radios used by Army Aviation and the Blue Force Tracker transceiver, as well as providing the means for rapid data transfer. This hardware/software solution also provides a flexible, software-driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D/E, CH-47F and UH/HH-60M/V.

The ADEC is an Army aviation program providing capabilities needed at the aviation unit level to implement and support improvements within aviation operations, safety, and training to increase operational effectiveness and situational awareness at all command echelons. ADEC provides a common and interoperable capability required to implement the DoD mandated Military Flight Operations Quality Assurance processes. ADEC will standardize flight scheduling/management, risk management, mission approval, and flight data analysis and visualization. ADEC provides interfaces to CAFRS to reduce data entry and information technology footprint while enabling disconnected and split based operations.

The ACN is an Army Aviation program required to streamline the completion of aviation maintenance activities and the documentation required to maintain airworthiness for all Army aircraft. ACN implements The Army Maintenance Management System - Aviation (TAMMS-A) digital logbook functionality and integrates with CAFRS to reduce manual entries and increase data accuracy. ACN reduces the information technology footprint within an aviation unit by integrating multiple software applications such as platform software applications and condition based maintenance plus tools onto one hardware platform. The ACN will be fielded to units equipped with Utility Helicopter (UH)-72, Fixed Wing and Unmanned Aircraft Systems (UAS) platforms.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft		P-1 Line Item Number / Title: AA0712 / Network And Mission Plan
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
Line Item MDAP/MAIS Code: N/A		

Aviation Systems, AMNP, currently manages the contract for FliteScene Software licenses, maintenance agreements, and related engineering services. FliteScene is a digital map technology application that provides enhanced navigation capabilities to the military flight crew. Multiple U.S. Army platforms utilize FliteScene and have received FliteScene products/services through Government contracts. These products/services have been primarily funded by the Aviation Systems, ANMP Product Directorate over-and-above the aforementioned products.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	63.108	43.356	82.420	-	82.420	83.265	69.506	77.747	57.403
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	41.346	28.406	53.999	-	53.999	54.553	45.539	50.937	37.609
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.353	2.990	5.683	-	5.683	5.743	4.794	5.362	3.957
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	108.807	74.752	142.102	-	142.102	143.561	119.839	134.046	98.969

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0712 / Network And Mission Plan
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0712 / Network and Mission Plan (Rationalization, Standardization, Interoperability, Compatibility, Simplification)				- / 402.398	- / 108.807	- / 74.752	- / 142.102	- / -	- / 142.102
P-40	Total Gross/Weapon System Cost				- / 402.398	- / 108.807	- / 74.752	- / 142.102	- / -	- / 142.102

*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:
 FY 2018 Base procurement dollars in the amount of \$47.972 million supports the procurement of AMPS hardware, AMPS upgrades to system software to support aviation fleet modernization programs and support of CAFRS software revisions for the Individual Aircrew Training Folder (IATF), Senior Leaders CAFRS data access and migration of the Air Traffic Services (ATS) records. AMPS hardware (B-Kits) is being replaced on a 5-year cycle to maintain pace with technology. FY 2018 is the start of the next cycle.

FY 2018 Base procurement dollars in the amount of \$60.136 million supports the procurement of IDM-401 kits to upgrade the fleet from the 304 and 304B variants and to provide a technology refresh to the IDM hardware. The funding will also address modifications to the IDM software to maintain compliance with cybersecurity and changes to the functionality of the IDM. These kits support production line and modification work order (MWO) installations for the AH-64D/E, CH-47F and HH/UH-60M/V helicopters. The IDM addresses Army Aviation's interoperability, lethality, and operational tempo by providing a common solution for fast and accurate data-burst communications via the TI and FS internet networks. The IDM provides a capability to communicate across the digital battlefield while also providing the flexibility to adapt to technology change.

FY 2018 Base procurement dollars in the amount of \$24.515 million supports the procurement, fielding, and training of ADEC systems for Army aviation units. ADEC will provide Army commanders and users the necessary operation, safety, and training information to ensure efficient mission management, reduce operations and support costs, and improve operational readiness. Fielding of ADEC is to Headquarters and Battalions of the Combat Aviation Brigades, Expeditionary Combat Aviation Brigades, Theater Aviation Brigades, and the Special Operations Aviation Regiment. ADEC is also fielded to the aviation training installations and flight detachments.

FY 2018 Base procurement dollars in the amount of \$9.479 million supports the procurement, fielding, and training of ACN systems for Army Aviation units. ACN will replace paper based processes and legacy aviation logistics information systems with the digital aircraft notebook providing necessary maintenance and airworthiness record keeping to ensure efficient and effective aircraft maintenance, integration with Interactive Electronic Technical Manuals and Condition Based Maintenance (CBM) tools, accurate record keeping and safe aircraft operations, reduce operations and support costs, and improve operational readiness.

In accordance with section 1815 of the FY 2008 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-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0712 / Network And Mission Plan	Modification Number / Title: AA0712 / Network and Mission Plan

ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	402.398	108.807	74.752	142.102	-	142.102
<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>)	-	-	-	-	-	-

Description:

The Network and Mission Plan budget line includes the Aviation Mission Planning System (AMPS), the Improved Data Modem (IDM), the Aviation Data Exploitation Capability (ADEC), and the Aircraft Notebook (ACN).

The AMPS provides automated mission planning, risk assessment and transfer of mission data to Army Aviation platforms in support of Mission Command functions within Aviation units. The AMPS system supports pre-mission planning and rehearsal, including route planning, communications planning, and aircraft configuration. AMPS has the ability to generate mission data in either hard copy or electronic formats. The electronic formats are loaded onto the aircraft platforms utilizing a Data Transfer Device initializing the communication, navigation, and weapons systems on the aircraft. Supported aircraft include the AH-64D/E, CH-47D/F, UH-60A/L/M/Q, HH-60L, and UH-72. Support for the Enhanced Medium Altitude Reconnaissance Surveillance System (EMARSS), UH-60V, AH-64E V6, and Unmanned Aircraft Systems (UAS) in the U.S. baseline will be provided in a future release. The AMPS program includes management of the Commander's Aviation Risk Tool (CART) and the Centralized Aviation Flight Records System (CAFRS). The AMPS hardware is replaced after five years of use to accommodate rapid commercial technology changes.

The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to the Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. The IDM provides connectivity to multiple radios used by Army Aviation and the Blue Force Tracker transceiver, as well as providing the means for rapid data transfer. This hardware/software solution also provides a flexible, software-driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D/E, CH-47F and UH/HH-60M/V.

The ADEC is an Army aviation program providing capabilities needed at the aviation unit level to implement and support improvements within aviation operations, safety, and training to increase operational effectiveness and situational awareness at all command echelons. ADEC provides a common and interoperable capability required to implement the DoD mandated Military Flight Operations Quality Assurance processes. ADEC will standardize flight scheduling/management, risk management, mission approval, and flight data analysis and visualization. ADEC provides interfaces to CAFRS to reduce data entry and information technology footprint while enabling disconnected and split based operations.

The ACN is an Army Aviation program required to streamline the completion of aviation maintenance activities and the documentation required to maintain airworthiness for all Army aircraft. ACN implements The Army Maintenance Management System - Aviation (TAMMS-A) digital logbook functionality and integrates with CAFRS to reduce manual entries and increase data accuracy. ACN reduces the information technology footprint within an aviation unit by integrating multiple software applications such as platform software applications and condition based maintenance plus tools onto one hardware platform. The ACN will be fielded to units equipped with Utility Helicopter (UH)-72, Fixed Wing and Unmanned Aircraft Systems (UAS) platforms.

FY 2018 Base procurement dollars in the amount of \$47.972 million supports the procurement of AMPS hardware, AMPS upgrades to system software to support aviation fleet modernization programs and support of CAFRS software revisions for the Individual Aircrew Training Folder (IATF), Senior Leaders CAFRS data access and migration of the Air Traffic Services (ATS) records. AMPS hardware (B-Kits) is being replaced on a 5-year cycle to maintain pace with technology. FY 2018 is the start of the next cycle.

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0712 / Network And Mission Plan	Modification Number / Title: AA0712 / Network and Mission Plan
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

FY 2018 Base procurement dollars in the amount of \$60.136 million supports the procurement of IDM-401 kits to upgrade the fleet from the 304 and 304B variants and to provide a technology refresh to the IDM hardware. The funding will also address modifications to the IDM software to maintain compliance with cybersecurity and changes to the functionality of the IDM. These kits support production line and modification work order (MWO) installations for the AH-64D/E, CH-47F and HH/UH-60M/V helicopters. The IDM addresses Army Aviation's interoperability, lethality, and operational tempo by providing a common solution for fast and accurate data-burst communications via the TI and FS internet networks. The IDM provides a capability to communicate across the digital battlefield while also providing the flexibility to adapt to technology change.

FY 2018 Base procurement dollars in the amount of \$24.515 million supports the procurement, fielding, and training of ADEC systems for Army aviation units. ADEC will provide Army commanders and users the necessary operation, safety, and training information to ensure efficient mission management, reduce operations and support costs, and improve operational readiness. Fielding of ADEC is to Headquarters and Battalions of the Combat Aviation Brigades, Expeditionary Combat Aviation Brigades, Theater Aviation Brigades, and the Special Operations Aviation Regiment. ADEC is also fielded to the aviation training installations and flight detachments.

FY 2018 Base procurement dollars in the amount of \$9.479 million supports the procurement, fielding, and training of ACN systems for Army aviation units. ACN will replace paper based processes and legacy aviation logistics information systems with the digital aircraft notebook providing necessary maintenance and airworthiness record keeping to ensure efficient and effective aircraft maintenance, integration with Interactive Electronic Technical Manuals and Condition Based Maintenance (CBM) tools, accurate record keeping and safe aircraft operations, reduce operations and support costs, and improve operational readiness.

In accordance with section 1815 of the FY 2008 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.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	63.108	43.356	82.420	-	82.420
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	41.346	28.406	53.999	-	53.999
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	4.353	2.990	5.683	-	5.683
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	108.807	74.752	142.102	-	142.102

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0712 / Network And Mission Plan		Modification Number / Title: AA0712 / Network and Mission Plan	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: AH-64D/E, CH-47D/F, UH-60A/L/M/Q/V, HH-60L/M, EMARSS, UH-72,UAS			Modification Type: Rationalization, Standardization, Interoperability, Compatibility, Simplification		Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement						
Modification Item 1 of 4: Aviation Mission Planning System (AMPS)						
B Kits						
Recurring						
Kit Quantity- (Computer)	5,348 / 16.476	4 / 0.033	30 / 0.354	1,217 / 17.600	0 / 0.000	1,217 / 17.600
ECPs	0 / 67.403	0 / 24.540	0 / 17.424	0 / 17.916	0 / 0.000	0 / 17.916
Systems Engineering	0 / 3.977	0 / 1.744	0 / 1.210	0 / 1.234	0 / 0.000	0 / 1.234
System Test and Eval	0 / 7.234	0 / 1.122	0 / 1.416	0 / 1.046	0 / 0.000	0 / 1.046
Fielding/Training	0 / 29.617	0 / 7.721	0 / 5.181	0 / 8.497	0 / 0.000	0 / 8.497
Other- PM Admin	0 / 6.930	0 / 1.760	0 / 1.689	0 / 1.679	0 / 0.000	0 / 1.679
Subtotal: Recurring	- / 131.637	- / 36.920	- / 27.274	- / 47.972	- / 0.000	- / 47.972
Subtotal: Aviation Mission Planning System (AMPS)	5,348 / 131.637	4 / 36.920	30 / 27.274	1,217 / 47.972	0 / 0.000	1,217 / 47.972
Modification Item 2 of 4: Improved Data Modem (IDM)						
B Kits						
Recurring						
Kit Quantity- IDM	0 / 9.776	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Kit Quantity- IDM OSA	3,601 / 29.359	220 / 9.733	50 / 3.636	371 / 19.489	0 / 0.000	371 / 19.489
Aircraft Integration	0 / 129.349	0 / 22.239	0 / 0.000	0 / 19.293	0 / 0.000	0 / 19.293
ECP (SW)	0 / 52.486	0 / 10.695	0 / 9.000	0 / 6.370	0 / 0.000	0 / 6.370
Systems Engineering	0 / 7.039	0 / 1.901	0 / 1.368	0 / 3.425	0 / 0.000	0 / 3.425
System Test & Eval	0 / 29.601	0 / 9.109	0 / 4.607	0 / 8.762	0 / 0.000	0 / 8.762
Fielding/Training	0 / 1.144	0 / 0.000	0 / 0.324	0 / 0.000	0 / 0.000	0 / 0.000
Other- PM Admin	0 / 12.007	0 / 3.377	0 / 2.898	0 / 2.797	0 / 0.000	0 / 2.797
Subtotal: Recurring	- / 270.761	- / 57.054	- / 21.833	- / 60.136	- / 0.000	- / 60.136
Subtotal: Improved Data Modem (IDM)	3,601 / 270.761	220 / 57.054	50 / 21.833	371 / 60.136	0 / 0.000	371 / 60.136
Modification Item 3 of 4: Aviation Data Exploitation Capability (ADEC)						
B Kits						
Recurring						
Kit Quantity- Workstation	0 / 0.000	148 / 0.491	154 / 0.702	506 / 2.738	0 / 0.000	506 / 2.738
Kit Quantity- Server	0 / 0.000	192 / 0.763	20 / 0.909	133 / 2.564	0 / 0.000	133 / 2.564
ECP (SW)	0 / 0.000	0 / 0.000	0 / 4.270	0 / 2.265	0 / 0.000	0 / 2.265

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Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: AA0712 / Network And Mission Plan		Modification Number / Title: AA0712 / Network and Mission Plan	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: AH-64D/E, CH-47D/F, UH-60A/L/M/Q/V, HH-60L/M, EMARSS, UH-72,UAS			Modification Type: Rationalization, Standardization, Interoperability, Compatibility, Simplification		Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Data	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.026	0 / 0.000	0 / 0.026
Systems Engineering	0 / 0.000	0 / 3.155	0 / 1.065	0 / 1.911	0 / 0.000	0 / 1.911
System Test & Eval	0 / 0.000	0 / 0.000	0 / 0.158	0 / 0.623	0 / 0.000	0 / 0.623
Fielding/Training	0 / 0.000	0 / 0.000	0 / 7.322	0 / 12.944	0 / 0.000	0 / 12.944
Other- PM Admin	0 / 0.000	0 / 1.906	0 / 1.798	0 / 1.444	0 / 0.000	0 / 1.444
<i>Subtotal: Recurring</i>	- / 0.000	- / 6.315	- / 16.224	- / 24.515	- / 0.000	- / 24.515
<i>Subtotal: Aviation Data Exploitation Capability (ADEC)</i>	0 / 0.000	340 / 6.315	174 / 16.224	639 / 24.515	0 / 0.000	639 / 24.515
Modification Item 4 of 4: Aircraft Notebook (ACN)						
B Kits						
Recurring						
ECP (SW)	0 / 0.000	0 / 0.792	0 / 2.018	0 / 2.033	0 / 0.000	0 / 2.033
Data	0 / 0.000	0 / 0.049	0 / 0.193	0 / 0.235	0 / 0.000	0 / 0.235
Systems Engineering	0 / 0.000	0 / 0.843	0 / 2.674	0 / 2.018	0 / 0.000	0 / 2.018
System Test	0 / 0.000	0 / 0.000	0 / 0.255	0 / 0.267	0 / 0.000	0 / 0.267
Fielding/Training	0 / 0.000	0 / 5.498	0 / 3.494	0 / 4.310	0 / 0.000	0 / 4.310
Other- PM Admin	0 / 0.000	0 / 1.336	0 / 0.787	0 / 0.616	0 / 0.000	0 / 0.616
<i>Subtotal: Recurring</i>	- / 0.000	- / 8.518	- / 9.421	- / 9.479	- / 0.000	- / 9.479
<i>Subtotal: Aircraft Notebook (ACN)</i>	0 / 0.000	0 / 8.518	0 / 9.421	0 / 9.479	0 / 0.000	0 / 9.479
<i>Subtotal: Procurement, All Modification Items</i>	8,949 / 402.398	564 / 108.807	254 / 74.752	2,227 / 142.102	0 / 0.000	2,227 / 142.102
Installation						
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -
Total						
Total Cost (Procurement + Support + Installation)	402.398	108.807	74.752	142.102	-	142.102

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0712 / Network And Mission Plan					Modification Number / Title: AA0712 / Network and Mission Plan			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Modification Item 1 of 4: Aviation Mission Planning System (AMPS)													
Manufacturer Information													
Manufacturer Name: VT Miltope							Manufacturer Location: Hope Hull, AL						
Administrative Leadtime (in Months): 8							Production Leadtime (in Months): 7						
Dates		FY 2016				FY 2017				FY 2018			
Contract Dates													
Delivery Dates													
Installation Information													
Method of Implementation: Not applicable													
Installation Schedule													
	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0712 / Network And Mission Plan					Modification Number / Title: AA0712 / Network and Mission Plan			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Modification Item 2 of 4: Improved Data Modem (IDM)													
Manufacturer Information													
Manufacturer Name: AMRDEC Software Engineering Directorate							Manufacturer Location: Redstone Arsenal, AL						
Administrative Leadtime (in Months):							Production Leadtime (in Months):						
Dates		FY 2016				FY 2017				FY 2018			
Contract Dates													
Delivery Dates													
Installation Information													
Method of Implementation: Not Applicable													
Installation Schedule													
	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-3a, Individual Modification: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0712 / Network And Mission Plan	Modification Number / Title: AA0712 / Network and Mission Plan
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 4: Aviation Data Exploitation Capability (ADEC)

Manufacturer Information

Manufacturer Name: AMRDEC Software Engineering Directorate	Manufacturer Location: Redstone Arsenal, AL
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Administrative Leadtime (in Months):	Production Leadtime (in Months):
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Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: Not Applicable

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0712 / Network And Mission Plan					Modification Number / Title: AA0712 / Network and Mission Plan			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Modification Item 4 of 4: Aircraft Notebook (ACN)													
Manufacturer Information													
Manufacturer Name: AMRDEC Software Engineering Directorate							Manufacturer Location: Redstone Arsenal, AL						
Administrative Leadtime (in Months):							Production Leadtime (in Months):						
Dates		FY 2016				FY 2017				FY 2018			
Contract Dates													
Delivery Dates													
Installation Information													
Method of Implementation: Not Applicable													
Installation Schedule													
	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	130.750	138.892	131.701	142.924	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	130.750	138.892	131.701	142.924	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	130.750	138.892	131.701	142.924	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The current Navigation Systems provide Army Aviation with extremely accurate and secure navigation and timing, assists in situational awareness, and aids in prevention of fratricide. The Global Positioning System (GPS) is installed in two configurations based upon mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation Set (DGNS) is used for the Non-bussed Utility and Cargo helicopters. The Embedded GPS Inertial Navigation System (EGI) is integrated into the Modernized Cargo, Utility, Attack, and Special Operations fleets of helicopters. The Preplanned Product Improvement (P3I) DGNS is being installed on the Blackhawk (UH-60A/L and HH-60A/L) and Chinook (CH-47D) aircraft. The P3I EGI is being installed on UH/HH-60M, CH-47F, Apache (AH-64E), and Special Operations Aircraft (SOA). GPS based navigation systems are required as the primary means of navigation in civil airspace. The modification program to the DGNS Computer Display Unit (CDU) and software upgrade is being conducted to reduce pilot workload and fatigue through a user friendly interface as well as provide maps and charts to augment tactical and Instrument Flight Rules navigational operations. The GPS Anti-Jam Antenna brings significantly greater levels of Assured - Position, Navigation, and Timing (A-PNT) through GPS jammer nulling technology.

The Aviation Tactical Communication Systems (ATCS) programs are Army Aviation Programs to procure A and B Kits to meet Army Aviation Communications requirements. The ATCS B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform. The ATCS program is currently being split into two separate programs, the first is Alt Comms, which includes the ARC-231 utilizing the RT-1808A radio, and the second, Multi-mode Aviation Radio Set (MARS), which consists of the ARC-231 utilizing the RT-1987 radio.

The Aviation Maritime Fixed - Aviation (AMF-A) Radio Integration Program installs and qualifies Small Airborne Networking Radio (SANR) hardware and software for production line and fielded Army Aviation Aircraft, SOA, and Unmanned Aircraft Systems (UAS) platforms to enable the operation of PEO C3T software defined networking radios with SINCGARS, Soldier Radio Waveform, mid-tier wideband networking waveforms, or other advanced networking waveforms. This program also provides for the procurement and installation of AMF Radio retrofit A-Kits for use on platforms that were fielded without these capabilities. AMF Radios and ancillaries are procured by PM Tactical Radios and are not part of the AMF Radio Integration effort.

The Blue Force Tracking - Aviation (BFT-A) Program integrates, qualifies, and manages the installation of BFT-2 system installation kits (A-Kit) for Army Rotary Wing Aircraft. The A-Kit utilizes the BFT-2 transceiver and KGV-72 boxes provided by PM Mission Command (MC).

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army Quantity	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
	Total Obligation Authority	45.597	33.984	91.328	4.289	95.617	71.913	76.391	72.436	78.608
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	33.162	31.979	66.420	-	66.420	52.300	55.557	56.280	57.170
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.145	3.997	8.302	-	8.302	6.537	6.944	2.985	7.146
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	82.904	69.960	166.050	4.289	170.339	130.750	138.892	131.701	142.924

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604201A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0723 / Communications, Navigation, and Surveillance (New or Improved Operational Capability)				- / 399.287	- / 82.904	- / 69.960	- / 166.050	- / 4.289	- / 170.339
P-40	Total Gross/Weapon System Cost				- / 399.287	- / 82.904	- / 69.960	- / 166.050	- / 4.289	- / 170.339

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	AA0723 / Communications, Navigation, and Surveillance (New or Improved Operational Capability)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 130.750	- / 138.892	- / 131.701	- / 142.924	Continuing	Continuing

*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:
 FY 2018 Base Procurement dollars in the amount of \$11.487 million supports the procurement of upgraded DGNS CDUs for the UH/HH-60L aircraft and the GPS anti-jam antenna integration effort which supports A-PNT.

FY 2018 Overseas Contingency Operations Procurement dollars in the amount of \$4.289 million supports the acceleration of capability in support of A-PNT by procuring additional upgraded DGNS CDUs which will facilitate the integration of a GPS anti-jam antenna technology onto the UH/HH-60L fleet.

FY 2018 Base Procurement dollars in the amount of \$11.924 million provides for procurement of GPS Anti Jam Antenna A Kits and platform integration for a GPS anti-jam antenna capability onto the UH/HH/MH/60-M/V and CH/MH-47F/G fleets and EGI P31.

FY 2018 Base Procurement dollars in the amount of \$66.108 million supports procurement of Alt Comms A and B-Kits and installation of A-Kits for the AH-64D/E, CH-47F, UH/HH-60L/M/V, LUH, UAS and SOA.

FY 2018 Base Procurement dollars in the amount of \$51.052 million supports procurement of ARC-231 B Kits, engineering, and aircraft integration.

FY 2018 Base Procurement dollars in the amount of \$4.249 million provides for procurement of AMF-A A-Kits for Shadow UAS and personnel support.

FY 2018 Base Procurement dollars in the amount of \$21.230 million provides for the procurement and installation BFT-2 A-Kits.

In accordance with section 1815 of the FY 2008 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-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	399.287	82.904	69.960	166.050	4.289	170.339	-	-	-	-	-	-
<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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The current Navigation Systems provide Army Aviation with extremely accurate and secure navigation and timing, assists in situational awareness, and aids in prevention of fratricide. The Global Positioning System (GPS) is installed in two configurations based upon mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation Set (DGNS) is used for the Non-bussed Utility and Cargo helicopters. The Embedded GPS Inertial Navigation System (EGI) is integrated into the Modernized Cargo, Utility, Attack, and Special Operations fleets of helicopters. The Preplanned Product Improvement (P3I) DGNS is being installed on the Blackhawk (UH-60A/L and HH-60A/L) and Chinook (CH-47D) aircraft. The P3I EGI is being installed on UH/HH-60M, CH-47F, Apache (AH-64E), and Special Operations Aircraft (SOA). GPS based navigation systems are required as the primary means of navigation in civil airspace. The modification program to the DGNS Computer Display Unit (CDU) and software upgrade is being conducted to reduce pilot workload and fatigue through a user friendly interface as well as provide maps and charts to augment tactical and Instrument Flight Rules navigational operations. The GPS Anti-Jam Antenna brings significantly greater levels of Assured - Position, Navigation, and Timing (A-PNT) through GPS jammer nulling technology.

The Aviation Tactical Communication Systems (ATCS) programs are Army Aviation Programs to procure A and B Kits to meet Army Aviation Communications requirements. The ATCS B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform. The ATCS program is currently being split into two separate programs, the first is Alt Comms, which includes the ARC-231 utilizing the RT-1808A radio, and the second, Multi-mode Aviation Radio Set (MARS), which consists of the ARC-231 utilizing the RT-1987 radio.

The Aviation Maritime Fixed - Aviation (AMF-A) Radio Integration Program installs and qualifies Small Airborne Networking Radio (SANR) hardware and software for production line and fielded Army Aviation Aircraft, SOA, and Unmanned Aircraft Systems (UAS) platforms to enable the operation of PEO C3T software defined networking radios with SINCGARS, Soldier Radio Waveform, mid-tier wideband networking waveforms, or other advanced networking waveforms. This program also provides for the procurement and installation of AMF Radio retrofit A-Kits for use on platforms that were fielded without these capabilities. AMF Radios and ancillaries are procured by PM Tactical Radios and are not part of the AMF Radio Integration effort.

The Blue Force Tracking - Aviation (BFT-A) Program integrates, qualifies, and manages the installation of BFT-2 system installation kits (A-Kit) for Army Rotary Wing Aircraft. The A-Kit utilizes the BFT-2 transceiver and KGV-72 boxes provided by PM Mission Command (MC).

-- Justification --

FY 2018 Base Procurement dollars in the amount of \$11.487 million supports the procurement of upgraded DGNS CDUs for the UH/HH-60L aircraft and the GPS anti-jam antenna integration effort which supports A-PNT.

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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FY 2018 Overseas Contingency Operations Procurement dollars in the amount of \$4.289 million supports the acceleration of capability in support of A-PNT by procuring additional upgraded DGNS CDUs which will facilitate the integration of a GPS anti-jam antenna technology onto the UH/HH-60L fleet.

FY 2018 Base Procurement dollars in the amount of \$11.924 million provides for procurement of GPS Anti Jam Antenna A Kits and platform integration for a GPS anti-jam antenna capability onto the UH/HH/MH/60-M/V and CH/MH-47F/G fleets and EGI P31.

FY 2018 Base Procurement dollars in the amount of \$66.108 million supports procurement of Alt Comms A and B-Kits and installation of A-Kits for the AH-64D/E, CH-47F, UH/HH-60L/M/V, LUH, UAS and SOA.

FY 2018 Base Procurement dollars in the amount of \$51.052 million supports procurement of ARC-231 B Kits, engineering, and aircraft integration.

FY 2018 Base Procurement dollars in the amount of \$4.249 million provides for procurement of AMF-A A-Kits for Shadow UAS and personnel support.

FY 2018 Base Procurement dollars in the amount of \$21.230 million provides for the procurement and installation BFT-2 A-Kits.

In accordance with section 1815 of the FY 2008 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.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	45.597	33.984	91.328	4.289	95.617	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	33.162	31.979	66.420	-	66.420	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	4.145	3.997	8.302	-	8.302	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	82.904	69.960	166.050	4.289	170.339	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army											Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance					Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:							
Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS					Modification Type: New or Improved Operational Capability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
Procurement														
Modification Item 1 of 9: DGNS (AN/ASN-128D) P3I														
A Kits														
Recurring														
Engineering Change Orders	0 / 2.800	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Data	0 / 1.712	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Training Equipment	0 / 6.800	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Systems Engineering	0 / 8.931	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Other - PM Admin	0 / 1.500	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Recurring	- / 21.743	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: DGNS (AN/ASN-128D) P3I	0 / 21.743	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Modification Item 2 of 9: DGNS (AN/ASN-128D) CDU/ SW Upgrade ECP B-Kit														
B Kits														
Recurring														
Upgraded CDU	0 / 0.000	0 / 0.000	0 / 0.000	9 / 0.850	41 / 3.892	50 / 4.742	- / -	- / -	- / -	- / -	- / -	- / -		
Fielding	0 / 0.000	0 / 0.660	0 / 0.000	0 / 0.184	0 / 0.397	0 / 0.581	- / -	- / -	- / -	- / -	- / -	- / -		
Systems Engineering / Mgmt	0 / 2.567	0 / 1.065	0 / 0.000	0 / 0.810	0 / 0.000	0 / 0.810	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Recurring	- / 2.567	- / 1.725	- / 0.000	- / 1.844	- / 4.289	- / 6.133	- / -	- / -	- / -	- / -	- / -	- / -		
Non-Recurring														
Training	0 / 0.850	0 / 0.689	0 / 0.000	0 / 0.934	0 / 0.000	0 / 0.934	- / -	- / -	- / -	- / -	- / -	- / -		
Integration & NRE	0 / 2.805	0 / 0.000	0 / 0.000	0 / 4.119	0 / 0.000	0 / 4.119	- / -	- / -	- / -	- / -	- / -	- / -		
Systems Test & Evaluation	0 / 0.000	0 / 1.328	0 / 0.000	0 / 1.758	0 / 0.000	0 / 1.758	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Non-Recurring	- / 3.655	- / 2.017	- / 0.000	- / 6.811	- / 0.000	- / 6.811	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: DGNS (AN/ASN-128D) CDU/SW Upgrade ECP B-Kit	0 / 6.222	0 / 3.742	0 / 0.000	9 / 8.655	41 / 4.289	50 / 12.944	- / -	- / -	- / -	- / -	- / -	- / -		
Modification Item 3 of 9: DGNS (AN/ASN-128D) CDU/ SW Upgrade ECP A-Kit														
A Kits														
Recurring														
Systems Engineering / Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.810	0 / 0.000	0 / 0.810	- / -	- / -	- / -	- / -	- / -	- / -		

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS	Modification Type: New or Improved Operational Capability	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Systems Test & Evaluation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.772	0 / 0.000	0 / 0.772	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.582	- / 0.000	- / 1.582	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
Integration & NRE	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.250	0 / 0.000	0 / 1.250	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.250	- / 0.000	- / 1.250	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: DGNS (AN/ASN-128D) CDU/SW Upgrade ECP A-Kit	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.832	0 / 0.000	0 / 2.832	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 4 of 9: Embedded GPS Inertial Nav System (EGI) P3I B-Kit												
B Kits												
Recurring												
EGI EAGLE SOA Shipsets	0 / 0.000	38 / 8.493	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Fielding	0 / 0.000	0 / 1.365	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Systems Engineering / Program Management	0 / 1.165	0 / 3.930	0 / 2.553	0 / 0.775	0 / 0.000	0 / 0.775	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 1.165	- / 13.788	- / 2.553	- / 0.775	- / 0.000	- / 0.775	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
Aircraft Integration	0 / 0.000	0 / 2.672	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Systems Test & Evaluation	0 / 3.000	0 / 2.600	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Training / Data / Support Equipment	0 / 1.493	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 4.493	- / 5.272	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Embedded GPS Inertial Nav System (EGI) P3I B-Kit	0 / 11.658	38 / 19.060	0 / 2.553	0 / 0.775	0 / 0.000	0 / 0.775	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 5 of 9: Embedded GPS Inertial Nav System (EGI) P3I A-Kit												
A Kits												
Recurring												
GPS Anti Jam Antenna	0 / 0.000	0 / 0.000	0 / 0.000	50 / 1.677	0 / 0.000	50 / 1.677	- / -	- / -	- / -	- / -	- / -	- / -
Systems Engineering / Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.865	0 / 0.000	0 / 0.865	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 2.542	- / 0.000	- / 2.542	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
Aircraft Integration	0 / 0.000	0 / 0.000	0 / 0.000	0 / 8.607	0 / 0.000	0 / 8.607	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS	Modification Type: New or Improved Operational Capability	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 8.607	- / 0.000	- / 8.607	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Embedded GPS Inertial Nav System (EGI) P31 A-Kit</i>	0 / 0.000	0 / 0.000	0 / 0.000	50 / 11.149	0 / 0.000	50 / 11.149	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 6 of 9: Aviation Tactical Comm Systems (ATCS) - Alt Comms												
A Kits												
Recurring												
Kit Quantity-A-Kit	303 / 9.600	0 / 0.000	0 / 0.000	84 / 2.514	0 / 0.000	84 / 2.514	- / -	- / -	- / -	- / -	- / -	- / -
Systems Engineering / Program Management	0 / 25.679	0 / 6.155	0 / 4.985	0 / 7.241	0 / 0.000	0 / 7.241	- / -	- / -	- / -	- / -	- / -	- / -
System Test & Evaluation	0 / 7.154	0 / 2.953	0 / 0.000	0 / 3.609	0 / 0.000	0 / 3.609	- / -	- / -	- / -	- / -	- / -	- / -
Training / Data / Support Equipment	0 / 0.000	0 / 0.230	0 / 0.000	0 / 0.046	0 / 0.000	0 / 0.046	- / -	- / -	- / -	- / -	- / -	- / -
Fielding	0 / 12.222	0 / 0.519	0 / 0.278	0 / 0.550	0 / 0.000	0 / 0.550	- / -	- / -	- / -	- / -	- / -	- / -
Other - PM Admin SEPM	0 / 0.000	0 / 0.000	0 / 1.662	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 54.655	- / 9.857	- / 6.925	- / 13.960	- / 0.000	- / 13.960	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
Aircraft Integration	0 / 94.109	0 / 0.000	0 / 10.788	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 94.109	- / 0.000	- / 10.788	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
B Kits												
Recurring												
Kit Quantity-B-Kit (ARC-231)	1,328 / 100.798	319 / 15.802	150 / 10.527	309 / 39.634	0 / 0.000	309 / 39.634	- / -	- / -	- / -	- / -	- / -	- / -
Kit Quantity-B-Kit (ARC201D)	1,187 / 31.496	122 / 2.960	0 / 0.000	162 / 6.813	0 / 0.000	162 / 6.813	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 132.294	- / 18.762	- / 10.527	- / 46.447	- / 0.000	- / 46.447	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Aviation Tactical Comm Systems (ATCS) - Alt Comms</i>	2,818 / 281.058	441 / 28.619	150 / 28.240	555 / 60.407	0 / 0.000	555 / 60.407	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 7 of 9: Aviation Tactical Comm Systems (ATCS) - MARS												
A Kits												
Recurring												
System Test & Evaluation	0 / 0.000	0 / 0.687	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.687	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS	Modification Type: New or Improved Operational Capability	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Aircraft Integration	0 / 0.000	0 / 0.000	0 / 0.000	0 / 13.412	0 / 0.000	0 / 13.412	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 13.412	- / 0.000	- / 13.412	- / -	- / -	- / -	- / -	- / -	- / -
B Kits												
Recurring												
Kit Quantity B-Kit (ARC 231)	0 / 0.000	0 / 0.000	0 / 0.000	30 / 6.640	0 / 0.000	30 / 6.640	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 6.640	- / 0.000	- / 6.640	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
ECP - Non-Recurring	0 / 0.000	0 / 0.000	0 / 0.000	0 / 31.000	0 / 0.000	0 / 31.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 31.000	- / 0.000	- / 31.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Aviation Tactical Comm Systems (ATCS) - MARS	0 / 0.000	0 / 0.687	0 / 0.000	30 / 51.052	0 / 0.000	30 / 51.052	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 8 of 9: Airborne Maritime Fixed (AMF-A) Radio Integration												
A Kits												
Recurring												
Kit Quantity - A-Kit - Production Line	28 / 1.967	20 / 2.029	20 / 1.459	24 / 1.431	0 / 0.000	24 / 1.431	- / -	- / -	- / -	- / -	- / -	- / -
Support Equipment	0 / 0.921	0 / 0.372	0 / 0.437	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
System Test and Evaluation	0 / 4.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
System Eng/Prog Mgmt (SEPM)	0 / 5.488	0 / 0.891	0 / 2.386	0 / 2.818	0 / 0.000	0 / 2.818	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 12.376	- / 3.292	- / 4.282	- / 4.249	- / 0.000	- / 4.249	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
NRE Aircraft Integration	0 / 18.594	0 / 0.000	0 / 4.397	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 18.594	- / 0.000	- / 4.397	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Airborne Maritime Fixed (AMF-A) Radio Integration	28 / 30.970	20 / 3.292	20 / 8.679	24 / 4.249	0 / 0.000	24 / 4.249	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 9 of 9: Blue Force Tracking-Aviation (BFT-A)												
A Kits												
Recurring												
BFT-A A-Kits (MWO)	876 / 8.330	268 / 5.909	236 / 6.190	228 / 5.329	0 / 0.000	228 / 5.329	- / -	- / -	- / -	- / -	- / -	- / -
BFT-A A Kit Spares	0 / 0.568	0 / 0.000	0 / 0.000	6 / 0.129	0 / 0.000	6 / 0.129	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS	Modification Type: New or Improved Operational Capability	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Test / Engineering	0 / 4.445	0 / 2.540	0 / 4.903	0 / 0.402	0 / 0.000	0 / 0.402	- / -	- / -	- / -	- / -	- / -	- / -
Fielding / Training	0 / 2.591	0 / 0.355	0 / 1.784	0 / 1.153	0 / 0.000	0 / 1.153	- / -	- / -	- / -	- / -	- / -	- / -
SEPM	0 / 6.189	0 / 6.753	0 / 2.480	0 / 6.004	0 / 0.000	0 / 6.004	- / -	- / -	- / -	- / -	- / -	- / -
Other Procurement	0 / 2.431	0 / 2.623	0 / 0.000	0 / 0.152	0 / 0.000	0 / 0.152	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Recurring	- / 24.554	- / 18.180	- / 15.357	- / 13.169	- / 0.000	- / 13.169	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
NRE-Test / Engineering	0 / 5.749	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Non-Recurring	- / 5.749	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Blue Force Tracking-Aviation (BFT-A)	876 / 30.303	268 / 18.180	236 / 15.357	234 / 13.169	0 / 0.000	234 / 13.169	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Procurement, All Modification Items	3,722 / 381.954	767 / 73.580	406 / 54.829	902 / 152.288	41 / 4.289	943 / 156.577	- / -	- / -	- / -	- / -	- / -	- / -

Installation												
Modification Item 1 of 9: DGNS (AN/ASN-128D) P3I	46 / 0.295	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 2 of 9: DGNS (AN/ASN-128D) CDU/ SW Upgrade ECP B-Kit	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 3 of 9: DGNS (AN/ASN-128D) CDU/ SW Upgrade ECP A-Kit	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 4 of 9: Embedded GPS Inertial Nav System (EGI) P3I B-Kit	0 / 0.000	0 / 0.000	38 / 0.447	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 5 of 9: Embedded GPS Inertial Nav System (EGI) P3I A-Kit	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 6 of 9: Aviation Tactical Comm Systems (ATCS) - Alt Comms	188 / 6.936	39 / 2.183	0 / 0.000	76 / 5.701	0 / 0.000	76 / 5.701	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 7 of 9: Aviation Tactical Comm Systems (ATCS) - MARS	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 8 of 9: Airborne Maritime Fixed (AMF-A) Radio Integration	0 / 0.000	0 / 0.000	20 / 0.095	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 9 of 9: Blue Force Tracking-Aviation (BFT-A)	274 / 10.102	193 / 7.141	525 / 14.589	346 / 8.061	0 / 0.000	346 / 8.061	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: Installation	508 / 17.333	232 / 9.324	583 / 15.131	422 / 13.762	0 / 0.000	422 / 13.762	- / -	- / -	- / -	- / -	- / -	- / -

Total

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Models of Systems Affected: UH/HH-60A/L, UH/HH/MH-60M, CH-47D, CH/MH-47F, AH-64D/E, LUH, UAS	Modification Type: New or Improved Operational Capability	Related RDT&E PEs:
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Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Total Cost (Procurement + Support + Installation)	399.287	82.904	69.960	166.050	4.289	170.339	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 9: DGNS (AN/ASN-128D) P3I

Manufacturer Information

Manufacturer Name: BAE International Incorporated	Manufacturer Location: Wayne, NJ
Administrative Leadtime (in Months):	Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	46 / 0.295	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	46 / 0.295	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	46	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	46	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 9: DGNS (AN/ASN-128D) CDU/SW Upgrade ECP B-Kit

Manufacturer Information

Manufacturer Name: BAE International Incorporated	Manufacturer Location: Wayne, NJ
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2017				
Delivery Dates			Nov 2018				

Installation Information

Method of Implementation: Modification Work Order (MWO)

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	15	15	10	10	55	55	55	55	13	13	12	12	15	15	16	16	378	760
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	10	10	55	55	55	55	13	13	12	12	15	15	16	394	760

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 9: DGNS (AN/ASN-128D) CDU/SW Upgrade ECP A-Kit

Manufacturer Information

Manufacturer Name: Mayflower	Manufacturer Location: Boston, MA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: MWO

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	13	13	12	12	16	16	15	15	428	760
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55	55	55	13	13	12	12	16	16	15	443	760

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 9: Embedded GPS Inertial Nav System (EGI) P3I B-Kit

Manufacturer Information

Manufacturer Name: Honeywell, Incorporated	Manufacturer Location: Clearwater, FL
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Dec 2015						
Delivery Dates	Nov 2016						

Installation Information

Method of Implementation: MWO

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	38 / 0.447	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	38 / 0.447	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	9	9	10	10	0	0	0	0	0	0	0	0	9	9	9	8	3	3	3	2	4	4	5	5	3,636	3,738
Out	-	0	0	0	0	0	9	9	10	10	0	0	0	0	0	0	0	0	9	9	9	8	3	3	3	2	4	4	5	3,641	3,738

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 5 of 9: Embedded GPS Inertial Nav System (EGI) P3I A-Kit

Manufacturer Information

Manufacturer Name: Mayflower Communications	Manufacturer Location: Boston, MA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2017				
Delivery Dates			Nov 2018				

Installation Information

Method of Implementation: MWO Installation

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	13	13	0	0	0	28	28	27	27	125	125	125	125	3,463	4,135
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	13	13	0	0	0	28	28	27	27	125	125	125	3,588	4,135

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 6 of 9: Aviation Tactical Comm Systems (ATCS) - Alt Comms

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 10

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Dec 2017				
Delivery Dates			Sep 2018				

Installation Information

Method of Implementation: Modification Work Order (MWO)

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	188 / 6.936	39 / 2.183	0 / 0.000	76 / 5.701	0 / 0.000	76 / 5.701	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	188 / 6.936	39 / 2.183	0 / 0.000	76 / 5.701	0 / 0.000	76 / 5.701	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	188	9	10	10	10	0	0	0	0	19	19	19	19	20	21	21	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	182	6	9	10	10	10	0	0	0	0	19	19	19	19	20	21	21	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 7 of 9: Aviation Tactical Comm Systems (ATCS) - MARS

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Ft. Wayne IN
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: MWO

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	12	12	69	70	70	69	64	64	64	65	3,484	4,069
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	12	12	69	70	70	69	64	64	64	3,549	4,069

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 8 of 9: Airborne Maritime Fixed (AMF-A) Radio Integration

Manufacturer Information

Manufacturer Name: Textron Systems	Manufacturer Location: Hunt Valley, MD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 6

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Dec 2016					
Delivery Dates		May 2017					

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	20 / 0.095	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	20 / 0.095	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	-	0	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,499	2,519
Out	-	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,499	2,519

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0723 / Comms, Nav Surveillance	Modification Number / Title: AA0723 / Communications, Navigation, and Surveillance

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 9 of 9: Blue Force Tracking-Aviation (BFT-A)

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 8	Production Leadtime (in Months): 10

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Jun 2016	Jun 2017	Jun 2018				
Delivery Dates	Mar 2017	Mar 2018	Mar 2019				

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	274 / 10.102	193 / 7.141	341 / 9.476	68 / 1.673	0 / 0.000	68 / 1.673	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	184 / 5.113	42 / 0.965	0 / 0.000	42 / 0.965	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	236 / 5.423	0 / 0.000	236 / 5.423	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	274 / 10.102	193 / 7.141	525 / 14.589	346 / 8.061	0 / 0.000	346 / 8.061	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	274	48	48	48	49	131	131	132	131	86	86	87	87	67	67	68	68	52	52	52	53	55	55	55	55	56	56	56	57	135	2,397
Out	137	137	48	48	48	49	131	131	132	131	86	86	87	87	67	67	68	68	52	52	52	53	55	55	55	55	56	56	56	192	2,397

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0711 / GATM Rollup
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	798.695	33.890	45.302	37.403	-	37.403	29.808	42.915	29.380	13.484	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	798.695	33.890	45.302	37.403	-	37.403	29.808	42.915	29.380	13.484	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	798.695	33.890	45.302	37.403	-	37.403	29.808	42.915	29.380	13.484	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget line supports procurement of Global Air Traffic Management equipment for both Fixed Wing and Rotary Wing aircraft.

Global Air Traffic Management (GATM) is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation and Surveillance and air traffic management programs. GATM is a Department of Defense term that describes the equipment, training, and procedures mandated by Civilian Air Traffic Control authorities in order to operate within 21st century airspace. Most ground based navigation aids will be phased out of service as the world transitions to a modernized air traffic management system. The modernization is designed to meet the current and future service demands posed by aviation growth. The advanced architecture will provide improved safety, accessibility, flexibility, predictability, reliability, capacity, efficiency, and security. Military aircraft will face significant flight restrictions if not GATM equipped.

GATM fixed wing requirements cannot be met with a single piece of avionics equipment. Meeting worldwide GATM fixed wing requirements will entail complete modifications that may include portions of military modifications and the upgrading of some existing avionics and displays and the procurement of new systems for the fixed wing fleet to include Engineer, Furnish and Install as a complete contractual effort. It also leverages Federal Aviation Administration Supplemental Type Certificates (STC) that are already in existence and applies STCs to aircraft modifications. These modifications ensure continued worldwide deployment capability and safe operations.

Meeting worldwide GATM requirements for rotary wing and Unmanned Aircraft System (UAS) fleets will entail the upgrading of some existing avionics and the procurement of new systems. Included in the GATM program is the European mandated 8.33 kHz channel spacing requirement which is being met by the Alt Comms and Multi-Mode Aviation Radio Set programs, the Mode S requirement which is being met by the Common Transponder Program (CXP) (APX-118, APX-123/123A, and Automatic Dependent Surveillance-Broadcast (ADS-B) programs), the ADS-B Out requirement which is being met through a series of upgrades to CXP components, Embedded GPS Inertial (EGI) Navigation Systems, and aircraft Flight Management Systems. Also included in the GATM program is the requirement to provide a GPS Primary Means Instrument Flight Rules navigation in civil and military controlled airspace.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	18.640	19.881	20.572	-	20.572	16.395	23.603	16.159	7.416

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: AA0711 / GATM Rollup
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.556	22.596	14.961	-	14.961	11.923	17.166	11.752	5.394
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.694	2.825	1.870	-	1.870	1.490	2.146	1.469	0.674
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	33.890	45.302	37.403	-	37.403	29.808	42.915	29.380	13.484

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft

P-1 Line Item Number / Title:
AA0711 / GATM Rollup

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-40a	AA0703 / GATM - Fixed Wing Aircraft				- / 207.469	- / -	- / -	- / -	- / -	- / -
P-3a	AA0704 / GATM Rotary Wing Aircraft (New or Improved Operational Capability)				- / 591.226	- / 33.890	- / 45.302	- / 37.403	- / -	- / 37.403
P-40	Total Gross/Weapon System Cost				- / 798.695	- / 33.890	- / 45.302	- / 37.403	- / -	- / 37.403

Exhibits Schedule					FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-40a	AA0703 / GATM - Fixed Wing Aircraft				- / -	- / -	- / -	- / -	- / -	- / -
P-3a	AA0704 / GATM Rotary Wing Aircraft (New or Improved Operational Capability)				- / -	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				- / 29.808	- / 42.915	- / 29.380	- / 13.484	Continuing	Continuing

*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:
 FY 2018 Base Procurement dollars in the amount of \$2.010 million supports procurement of APX-123 to APX-123A conversion kits for the production line and MWO efforts for the UH-60A/L/M, CH-47F, MH-47G, MH-60M, A/MH-6, AH-64D/E and UAS to provide these aircraft with enhanced IFF Mode 5 capabilities. Procurement of APX-123A for the production line efforts. This includes the installation of Remote Control Units for the UH-60L.

FY 2018 Base Procurement dollars in the amount of \$1.040 million supports the installation of APX-118 Upgrade Kits.

FY 2018 Base Procurement dollars in the amount of \$1.000 million supports the installation of ADS-B Out A-Kits onto the HH/UH-60L fleet.

FY 2018 Base Procurement dollars in the amount of \$14.458 million supports procurement and installation of EGI Navigational System B-Kits and associated aircraft integration costs to meet GATM requirements.

FY 2018 Base Procurement dollars in the amount of \$18.895 million supports procurement of CXP A & B-Kit procurements for both the APX-123/123A and ADS-B Out. The funding also provides for the continued upgrades to the APX-118 to APX-123 and conversions to APX-123 to APX-123A.

In accordance with Section 1815 of the FY 2008 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-40a, Budget Item Justification For Aggregated Items: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10 **P-1 Line Item Number / Title:** AA0711 / GATM Rollup **Aggregated Items Title:** Various

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
GATM - Fixed Wing Aircraft																				
AA0703 / GATM - Fixed Wing Aircraft			-	-	207.469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: GATM - Fixed Wing Aircraft			-	-	207.469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	207.469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	591.226	33.890	45.302	37.403	-	37.403	-	-	-	-	-	-
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	591.226	33.890	45.302	37.403	-	37.403	-	-	-	-	-	-
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	591.226	33.890	45.302	37.403	-	37.403	-	-	-	-	-	-
<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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Global Air Traffic Management (GATM) is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation, Surveillance, and Air Traffic Management programs. GATM is a Department of Defense (DoD) term that describes the equipment, training, and procedures mandated by Civilian Air Traffic Control (ATC) authorities in order to operate within 21st century airspace. Most ground based navigation aids will be phased out of service as the world transitions to a modernized air traffic management system. The modernization is designed to meet the current and future service demands posed by aviation growth. The advanced architecture will provide improved safety, accessibility, flexibility, predictability, reliability, capacity, efficiency, and security. Military aircraft will face significant flight restrictions if not GATM equipped. GATM requirements are driven by civil aviation authorities and are not under DoD control. Meeting the worldwide GATM requirement will entail the upgrading of some existing avionics and the procurement of new systems for rotary wing and Unmanned Aircraft System (UAS) fleets. Included in the GATM program is the European mandated 8.33 kHz channel spacing requirement which is being met by the Alt Comms and Multi-Mode Aviation Radio Set programs, the Mode S requirement which is being met by the Common Transponder Program (formerly APX-118, APX-123/123A, and ADS-B programs), the ADS-B Out requirement which is being met through a series of upgrades to CXP components, Embedded GPS Inertial (EGI) Navigation Systems, and aircraft Flight Management Systems. Also included in the GATM program is the requirement to provide a GPS Primary Means Instrument Flight Rules navigation in civil and military controlled airspace.

GATM provides Army aircraft improved capabilities to allow them to continue to operate in civil controlled airspace without threat of exclusion. Identification Friend or Foe (IFF) Mode 5 provides enhanced security and greatly improved performance over Mode 4. It also improves compatibility with civil ATC by providing less interference. The Full Operational Capability for Mode 5 is 2020. Europe currently mandates Mode S and plans expansion of 8.33 kHz Very High Frequency - Amplitude Modulation (VHF-AM) in controlled airspace to ground level in high volume traffic areas. Army aircraft will not be allowed to transit through or operate in European airspace affected by these mandates unless the necessary Mode S, 8.33 kHz, and ADS-B Out upgrades are made. Army aircraft will also be excluded from flying in FAA controlled airspace without the ADS-B Out upgrades. Benefits of GATM include direct routing through civil airspace resulting in significant savings in both time and training costs associated with flight hours. It allows for operations in worldwide civil controlled airspace and improves safety and operational efficiency while meeting the new worldwide frequency spectrum requirements.

FY 2018 Base Procurement dollars in the amount of \$2.010 million supports procurement of APX-123 to APX-123A conversion kits for the production line and MWO efforts for the UH-60A/L/M, CH-47F, MH-47G, MH-60M, A/MH-6, AH-64D/E and UAS to provide these aircraft with enhanced IFF Mode 5 capabilities. Procurement of APX-123A for the production line efforts. This includes the installation of Remote Control Units for the UH-60L.

FY 2018 Base Procurement dollars in the amount of \$1.040 million supports the installation of APX-118 Upgrade Kits.

FY 2018 Base Procurement dollars in the amount of \$1.000 million supports the installation of ADS-B Out A-Kits onto the HH/UH-60L fleet.

FY 2018 Base Procurement dollars in the amount of \$14.458 million supports procurement and installation of EGI Navigational System B-Kits and associated aircraft integration costs to meet GATM requirements.

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Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

FY 2018 Base Procurement dollars in the amount of \$18.895 million supports procurement of CXP A & B-Kit procurements for both the APX-123/123A and ADS-B Out. The funding also provides for the continued upgrades to the APX-118 to APX-123 and conversions to APX-123 to APX-123A.

In accordance with Section 1815 of the FY 2008 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.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	18.640	19.881	20.572	-	20.572	-	-	-	-
ANG	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	13.556	22.596	14.961	-	14.961	-	-	-	-
AR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	1.694	2.825	1.870	-	1.870	-	-	-	-
Total:	Quantity	-	-	-	-	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	33.890	45.302	37.403	-	37.403	-	-	-	-

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0711 / GATM Rollup					Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:							
Models of Systems Affected: UH&HH60A/L, CH47D/F, UH60M, MH47G, MH60M, A/MH6, AH64A/D/E, UAS					Modification Type: New or Improved Operational Capability					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
Procurement														
Modification Item 1 of 6: Global Air Traffic Mgmt RW APX-123														
A Kits														
Recurring														
Kit Quantity - APX-123 A-Kits	598 / 2.231	82 / 0.300	82 / 0.310	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Aircraft Integ/RCUs/KIV77	0 / 16.933	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
ECP	0 / 6.785	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Systems Eng/Prog Mgt (SEPM)	0 / 16.969	0 / 2.582	0 / 1.597	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Other PM Admin	0 / 6.292	0 / 1.100	0 / 1.045	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Recurring	- / 49.210	- / 3.982	- / 2.952	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
B Kits														
Recurring														
APX-123 B Kit Conversion Kit (MWO)	0 / 0.000	871 / 6.196	77 / 0.960	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
APX-123A B-Kit Production Line	702 / 25.833	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
APX-123 B-Kit Conversion Kit Prod Line	113 / 1.144	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
APX-123 B-Kits Production Line	185 / 6.878	0 / 0.000	240 / 8.450	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
APX-123 B-Kit (MWO)	60 / 2.231	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Fielding/Training	0 / 12.537	0 / 1.446	0 / 1.200	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Recurring	- / 48.623	- / 7.642	- / 10.610	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Non-Recurring														
B Kit	0 / 23.400	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Non-Recurring	- / 23.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Global Air Traffic Mgmt RW APX-123	1,658 / 121.233	953 / 11.624	399 / 13.562	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Modification Item 2 of 6: Global Air Traffic Mgmt RW APX-118 Upgrade Kits														
A Kits														
Recurring														
Kit Qty- Upgrade A-Kits	972 / 4.076	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Engineering Change Orders	0 / 1.123	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
System Eng/Prog Mgt (SEPM)	0 / 9.205	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Subtotal: Recurring	- / 14.404	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10					P-1 Line Item Number / Title: AA0711 / GATM Rollup					Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:							
Models of Systems Affected: UH&HH60A/L, CH47D/F, UH60M, MH47G, MH60M, A/MH6, AH64A/D/E, UAS					Modification Type: New or Improved Operational Capability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
B Kits														
Recurring														
APX-123 Upgrade Kit (MWO)	2,375 / 26.666	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 26.666	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Non-Recurring														
B-Kits Nonrecurring	0 / 3.520	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Non-Recurring</i>	- / 3.520	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Global Air Traffic Mgmt RW APX-118 Upgrade Kits</i>	3,347 / 44.590	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Modification Item 3 of 6: Global Air Traffic Mgmt RW ADS-B														
A Kits														
Recurring														
Kit Qty: ADS-B A-Kits	0 / 0.000	0 / 0.000	828 / 4.140	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Engineering Change Orders	0 / 2.604	0 / 0.000	0 / 1.475	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Data	0 / 2.445	0 / 0.000	0 / 1.017	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Training Equipment	0 / 3.465	0 / 0.000	0 / 0.420	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Fielding	0 / 0.625	0 / 0.000	0 / 0.220	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
System Eng/Prog Mgt (SEPM)	0 / 4.500	0 / 2.345	0 / 1.042	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
System Test & Eval (ST&E)	0 / 0.580	0 / 0.376	0 / 0.211	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Other- PM Admin	0 / 3.900	0 / 1.100	0 / 1.245	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 18.119	- / 3.821	- / 9.770	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Non-Recurring														
Non-Recurring Engineering	0 / 23.127	0 / 10.157	0 / 1.009	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Non-Recurring</i>	- / 23.127	- / 10.157	- / 1.009	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
B Kits														
Recurring														
Kit Qty: ADS-B B-Kits	0 / 0.000	0 / 0.000	828 / 5.796	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 5.796	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
<i>Subtotal: Global Air Traffic Mgmt RW ADS-B</i>	0 / 41.246	0 / 13.978	1,656 / 16.575	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -		
Modification Item 4 of 6: Embedded GPS Inertial (EGI) Navigation System ECP														

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Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AA0711 / GATM Rollup						Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH&HH60A/L, CH47D/F, UH60M, MH47G, MH60M, A/MH6, AH64A/D/E, UAS				Modification Type: New or Improved Operational Capability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
A Kits													
Recurring													
Training/Data/Support Equipment	0 / 1.000	0 / 0.000	0 / 1.070	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Systems Engineering/Program Management	0 / 2.000	0 / 0.000	0 / 0.000	0 / 4.854	0 / 0.000	0 / 4.854	- / -	- / -	- / -	- / -	- / -	- / -	
Fielding	0 / 1.000	0 / 0.000	0 / 0.000	0 / 0.120	0 / 0.000	0 / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 4.000	- / 0.000	- / 1.070	- / 4.974	- / 0.000	- / 4.974	- / -	- / -	- / -	- / -	- / -	- / -	
B Kits													
Recurring													
EGI+	349 / 25.095	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
EGI EAGLE SOA Retrofit Kits	0 / 0.000	0 / 0.000	0 / 0.000	89 / 2.910	0 / 0.000	89 / 2.910	- / -	- / -	- / -	- / -	- / -	- / -	
EGI EAGLE SOA Shipsets	0 / 0.000	0 / 0.000	87 / 11.167	43 / 4.054	0 / 0.000	43 / 4.054	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 25.095	- / 0.000	- / 11.167	- / 6.964	- / 0.000	- / 6.964	- / -	- / -	- / -	- / -	- / -	- / -	
Non-Recurring													
Systems Testing and Evaluation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.520	0 / 0.000	0 / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	
Aircraft Integration	0 / 16.565	0 / 7.000	0 / 2.096	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Non-Recurring	- / 16.565	- / 7.000	- / 2.096	- / 2.520	- / 0.000	- / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Embedded GPS Inertial (EGI) Navigation System ECP	349 / 45.660	0 / 7.000	87 / 14.333	132 / 14.458	0 / 0.000	132 / 14.458	- / -	- / -	- / -	- / -	- / -	- / -	
Modification Item 5 of 6: Common Transponder (CXP)													
A Kits													
Recurring													
ADS-B A-Kit (Wire Harness)	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.366	0 / 0.000	0 / 2.366	- / -	- / -	- / -	- / -	- / -	- / -	
System Test and Evaluation	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.949	0 / 0.000	0 / 0.949	- / -	- / -	- / -	- / -	- / -	- / -	
Systems Engineering/Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 5.220	0 / 0.000	0 / 5.220	- / -	- / -	- / -	- / -	- / -	- / -	
Fielding/Training	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.668	0 / 0.000	0 / 2.668	- / -	- / -	- / -	- / -	- / -	- / -	
Ancillary Procurements	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.063	0 / 0.000	0 / 0.063	- / -	- / -	- / -	- / -	- / -	- / -	
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 11.266	- / 0.000	- / 11.266	- / -	- / -	- / -	- / -	- / -	- / -	
B Kits													
Recurring													
APX-123 B-Kit Conversion Kit - MWO	0 / 0.000	0 / 0.000	0 / 0.000	200 / 1.624	0 / 0.000	200 / 1.624	- / -	- / -	- / -	- / -	- / -	- / -	
APX-123A B-Kit Production Line	0 / 0.000	0 / 0.000	0 / 0.000	119 / 4.794	0 / 0.000	119 / 4.794	- / -	- / -	- / -	- / -	- / -	- / -	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army										Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10				P-1 Line Item Number / Title: AA0711 / GATM Rollup				Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: UH&HH60A/L, CH47D/F, UH60M, MH47G, MH60M, A/MH6, AH64A/D/E, UAS				Modification Type: New or Improved Operational Capability			Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 6.418	- / 0.000	- / 6.418	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												
ADS-B Out Non-Recurring Integration	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.211	0 / 0.000	0 / 1.211	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 1.211	- / 0.000	- / 1.211	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Common Transponder (CXP)</i>	0 / 0.000	0 / 0.000	0 / 0.000	319 / 18.895	0 / 0.000	319 / 18.895	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 6 of 6: Legacy GATM-RW Mods												
A Kits												
Non-Recurring												
Legacy GATM-RW Mods	0 / 331.565	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Non-Recurring</i>	- / 331.565	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Legacy GATM-RW Mods</i>	0 / 331.565	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	5,354 / 584.294	953 / 32.602	2,142 / 44.470	451 / 33.353	0 / 0.000	451 / 33.353	- / -	- / -	- / -	- / -	- / -	- / -
Installation												
Modification Item 1 of 6: Global Air Traffic Mgmt RW APX-123	60 / 0.060	0 / 0.000	82 / 0.117	400 / 2.010	- / -	400 / 2.010	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 2 of 6: Global Air Traffic Mgmt RW APX-118 Upgrade Kits	1,109 / 6.872	644 / 1.288	132 / 0.715	490 / 1.040	- / -	490 / 1.040	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 3 of 6: Global Air Traffic Mgmt RW ADS-B	0 / 0.000	0 / 0.000	0 / 0.000	828 / 1.000	- / -	828 / 1.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 4 of 6: Embedded GPS Inertial (EGI) Navigation System ECP	349 / 0.000	0 / 0.000	0 / 0.000	87 / 0.000	- / -	87 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Modification Item 5 of 6: Common Transponder (CXP)	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	1,518 / 6.932	644 / 1.288	214 / 0.832	1,805 / 4.050	- / -	1,805 / 4.050	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	591.226	33.890	45.302	37.403	-	37.403	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 6: Global Air Traffic Mgmt RW APX-123

Manufacturer Information

Manufacturer Name: BAE Systems, Incorporated	Manufacturer Location: Greenlawn, NY
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 16

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates	Mar 2016	Mar 2017					
Delivery Dates	Jun 2017	Jun 2018					

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	60 / 0.060	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	82 / 0.117	400 / 2.010	- / -	400 / 2.010	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	60 / 0.060	0 / 0.000	82 / 0.117	400 / 2.010	- / -	400 / 2.010	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot								
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
In	60	0	0	0	0	0	0	0	82	100	100	100	100	116	116	116	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,008
Out	60	0	0	0	0	0	0	0	0	82	100	100	100	100	116	116	116	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,008

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item 2 of 6: Global Air Traffic Mgmt RW APX-118 Upgrade Kits

Manufacturer Information

Manufacturer Name: BAE Systems, Incorporated Manufacturer Location: Greenlawn, NY

Administrative Leadtime (in Months): Production Leadtime (in Months):

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1,109 / 6.872	644 / 1.288	132 / 0.715	490 / 1.040	- / -	490 / 1.040	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	1,109 / 6.872	644 / 1.288	132 / 0.715	490 / 1.040	- / -	490 / 1.040	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	1,109	161	161	161	161	33	33	33	33	123	123	122	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,375
Out	1,034	75	161	161	161	161	33	33	33	33	123	123	122	122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,375

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item 3 of 6: Global Air Traffic Mgmt RW ADS-B

Manufacturer Information

Manufacturer Name: BAE Systems, Incorporated Manufacturer Location: Greenlawn, NY

Administrative Leadtime (in Months): 2 Production Leadtime (in Months): 16

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Dec 2016					
Delivery Dates		Mar 2018					

Installation Information

Method of Implementation: Modification Work Order (MWO) - Contractor

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	828 / 1.000	- / -	828 / 1.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	828 / 1.000	- / -	828 / 1.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	414	414	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	-	0	0	0	0	0	0	0	0	0	0	0	414	414	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 6: Embedded GPS Inertial (EGI) Navigation System ECP

Manufacturer Information

Manufacturer Name: Honeywell, Incorporated	Manufacturer Location: Clearwater, FL
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates		Dec 2016	Dec 2017				
Delivery Dates		Nov 2017	Nov 2018				

Installation Information

Method of Implementation: Modification Work Order (MWO)

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	349 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	87 / 0.000	- / -	87 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	349 / 0.000	0 / 0.000	0 / 0.000	87 / 0.000	- / -	87 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	349	0	0	0	0	0	0	0	0	22	22	22	21	33	33	33	33	10	10	9	9	11	11	11	11	5	5	5	5	13	683
Out	349	0	0	0	0	0	0	0	0	0	22	22	22	21	33	33	33	33	10	10	9	9	11	11	11	11	5	5	5	18	683

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: AA0711 / GATM Rollup	Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 5 of 6: Common Transponder (CXP)

Manufacturer Information

Manufacturer Name: BAE Systems, Incorporated	Manufacturer Location: Greenlawn, NY
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 16

Dates	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Contract Dates			Mar 2018				
Delivery Dates			Jun 2019				

Installation Information

Method of Implementation: TBD

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	68	69	69	69	131	131	131	132	37	37	38	38	0	1,000
Out	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	68	69	69	69	131	131	131	132	37	37	38	38	1,000

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army																							Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10										P-1 Line Item Number / Title: AA0711 / GATM Rollup										Modification Number / Title: AA0704 / GATM Rotary Wing Aircraft											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 6 of 6: Legacy GATM-RW Mods																															
Manufacturer Information																															
Manufacturer Name: N/A														Manufacturer Location: N/A																	
Administrative Leadtime (in Months):														Production Leadtime (in Months):																	
Dates		FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: N/A																															
Installation Schedule																															
	PYS	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305204A, 0305233A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160	60.068	5.404	-	0.000	-	2,206.636
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160	60.068	5.404	-	0.000	-	2,206.636
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160	60.068	5.404	-	0.000	-	2,206.636

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TUAS provides Army Brigade Combat Teams, Aviation Brigades, and Special Operation Groups situational awareness, improved wide-area target acquisition, Laser Designation, and high value target (HVT) tracking to conduct both shaping and decisive operations with greatly increased lethality. The TUAS meets the need for a day/night, multi sensor collection system with improved connectivity to joint forces that provides real time battle information that cannot be observed from standoff airborne sensor systems, ground collection systems, and scouts. The key performance parameters are blocked into RQ-7B (production) thresholds and subsequent upgrade objectives. The RQ-7B system is a Reconnaissance Surveillance Target Acquisition (RSTA), Command, Control, Communications, and Intelligence (C3I) system that supports Brigade, Battalion, and lower level elements. The RQ-7B Shadow has logged over 1,000,000 flight hours in support of Overseas Contingency Operations (OCO).

The TUAS RQ-7B completed production of 104 Army systems in 2011 (FY 2009 Funding) and entered a modifications phase. These modifications are divided into three primary sections: RQ-7B v2, System Modifications, and Payload Modifications. The RQ-7B v2 or Shadow v2 effort incorporates Type 1 Encryption, STANAG 4586 Compliant Software, a Universal Ground Control Station (UGCS), a Universal Ground Data Terminal (UGDT), a STANAG 4586 compliant Portable Ground Control Station, and standardizes modifications introduced during the wars in Iraq and Afghanistan. System Modifications and Payload Modifications consolidate development activities not included in the Shadow v2 Block Modification.

In 2009, the Product Office placed the last of the authorized 104 systems on contract, ending the Production phase of the acquisition. In 2010, the Army G8 established a RQ-7B UAV MODS Aircraft Procurement Exhibit approving several modifications for development and production. These modifications will be incrementally integrated, tested, and fielded in accordance with the technology readiness and funding profile. The major modifications are grouped as follows: (1) v2 Modifications (includes TCDL and Encryption), (2) Payload Modifications, (3) Air Vehicle Modifications, and (4) Ground Support Modifications. The RQ-7B v2 will be compliant with STANAG 4586 and the Joint Interoperability Profiles. To achieve this, the system incorporates the UGCS and UGDT along with an upgraded Air Data Terminal, Airborne Computer, and onboard software.

The RQ-7B v2 Shadow upgrade program complies with the congressionally mandated Tactical Control Data Link (TCDL) and North Atlantic Treaty Organization (NATO) Standardization Agreement 4586 in order to meet requirements in the Operational Requirements Document, provide a secure data link, an enhanced propulsion system, payload improvements, avionics improvements, and ground equipment improvements.

Changed the P-Form Modification structure to comply with MIL-STD-881C, align with the R-Forms, and align with ACAT-I reporting requirements. The Shadow v2 Retrofit Kits Procurement completed in 2016. The OSRVT Modification moved to Modification Line A00121 in 2017.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305204A, 0305233A
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Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A00018 / RQ-7 UAV MODS (UNCLASSIFIED)				- / 1,650.173	- / 87.236	- / 320.595	- / 83.160	- / -	- / 83.160
P-40	Total Gross/Weapon System Cost				- / 1,650.173	- / 87.236	- / 320.595	- / 83.160	- / -	- / 83.160

*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:
 FY 2018 Funding of \$83.16 million provides for production and fielding of Shadow hardware procured in prior years. It also funds Block 3 Upgrade Kits for 32 systems and 23 high powered launchers for the Block 3 Upgrade Kits. The Block 3 Upgrade Kit includes Weatherization, Small Mission Computer, Electro Optical / Infrared /Laser Designator (EO/IR/LD) Universal Interface Assembly, Block 3 Engine, Communications Relay Installation Kit, and Voice over Internet Protocol (VoIP). Funding also procures Engineering, Logistics, and Fielding Support.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,650.173	87.236	320.595	83.160	-	83.160

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

Changed the P-Form Modification structure to comply with MIL-STD-881C, align with the R-Forms, and align with ACAT-I reporting requirements. The Shadow v2 Retrofit Kits Procurement completed in 2016. The OSRVT Modification moved to Modification Line A00121 in 2017.

There is no funding beginning in FY2018 for the modifications Shadow Version 2 (v2), Shadow System Modifications, or OSRVT Modifications.

Justification:

FY 2018 Funding of \$83.16 million procures 23 Launchers and Block 3 Upgrade Kits for 32 systems. The Block 3 Upgrade Kit includes Weatherization, Small Mission Computer (SMC), Electro Optical / Infrared / Laser Designator (EO/IR/LD) Universal Interface Assembly, Block 3 Engine, Communications Relay Installation Kit, and Voice over Internet Protocol (VoIP).

Air Vehicle Modifications:

Air Vehicle (AV) Modifications include the Block 3 Upgrade Kit. Weatherization modifications allow the AV to fly in low visibility conditions and in up to two inches of rain per hour. The SMC is an onboard computer that provides airborne processing power. The SMC addresses obsolescence concerns, features a dual processor, and also contains 50x more processing power than the current computer. The EO/IR/LD Universal Interface Assembly eliminates reliance on a proprietary payload interface, introducing the capability to support payloads from multiple vendors. The Block 3 engine improves reliability over the current engine, increases thrust and reduces the noise signature of the Shadow system. The Communication Relay upgrade will enable voice communications to additional users who utilize other waveforms in the VHF and UHF bands. The VoIP upgrade will extend voice communications range from 85 km to 125 km, and will also provide a more reliable means of voice communications.

Ground Support Modifications:

Ground Support Modifications include New Equipment Training (NET) for newly fielded v2 systems, Launchers for Block 3 upgrade kits, and Government Furnished Equipment (GFE). NET is necessary to introduce new equipment to units that transition from the Shadow V1 to the Shadow V2 system. The Block 3 upgrade kit requires 1 high powered launcher per unit to support operations at high altitudes. These high powered launchers will replace 1 of the standard launchers which currently reside with the unit. The high powered launchers are hydraulic-pneumatic rail launchers, enabling AV launch in austere tactical locations and at high altitudes with the Block 3 upgrade kits. GFE is required to procure hardware to support the production of Shadow v2 retrofit kits in production.

Payloads Modifications:

Payload modifications include program management, engineering, and logistics support to develop a competitive contract to select, integrate, and procure improved Shadow EO/IR/LD payloads.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army						Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS			Modification Number / Title: A00018 / RQ-7 UAV MODS	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Models of Systems Affected: N/A			Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement							
Modification Item 1 of 6: SHADOW Version 2 (v2)							
A Kits							
Recurring							
Software	0 / 11.648	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	
Pubs/Tech Data	0 / 3.747	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	
GFE	0 / 53.437	0 / 2.680	0 / 4.170	0 / 0.000	0 / 0.000	0 / 0.000	
Training Equipment	40 / 33.006	0 / 0.000	6 / 4.509	0 / 0.000	0 / 0.000	0 / 0.000	
Training (NET)	0 / 35.971	0 / 7.520	0 / 8.307	0 / 0.000	0 / 0.000	0 / 0.000	
Program Management	0 / 39.221	0 / 0.751	0 / 4.024	0 / 0.000	0 / 0.000	0 / 0.000	
Engineering	0 / 20.579	0 / 0.167	0 / 1.213	0 / 0.000	0 / 0.000	0 / 0.000	
Logistics	0 / 25.552	0 / 0.000	0 / 0.805	0 / 0.000	0 / 0.000	0 / 0.000	
Subtotal: Recurring	- / 223.161	- / 11.118	- / 23.028	- / 0.000	- / 0.000	- / 0.000	
Non-Recurring							
Nonrecurring Engineering Obsolescence	0 / 79.877	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	
Subtotal: Non-Recurring	- / 79.877	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	
B Kits							
Recurring							
Shadow v2 Retrofit Kits	96 / 711.371	4 / 21.593	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	
UGCS Only System Retrofit	28 / 89.763	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	
Launchers	50 / 15.450	42 / 22.750	8 / 4.004	0 / 0.000	0 / 0.000	0 / 0.000	
MMF Retrofit Kits	21 / 16.846	0 / 0.000	13 / 17.807	0 / 0.000	0 / 0.000	0 / 0.000	
Shadow V2 System	0 / 0.000	0 / 0.000	6 / 159.367	0 / 0.000	0 / 0.000	0 / 0.000	
System Refurbishment	0 / 0.000	0 / 0.000	3 / 3.042	0 / 0.000	0 / 0.000	0 / 0.000	
Subtotal: Recurring	- / 833.430	- / 44.343	- / 184.220	- / 0.000	- / 0.000	- / 0.000	
Subtotal: SHADOW Version 2 (v2)	235 / 1,136.468	46 / 55.461	36 / 207.248	0 / 0.000	0 / 0.000	0 / 0.000	
Modification Item 2 of 6: SHADOW SYSTEM MODIFICATIONS							
A Kits							
Recurring							
Weatherization	0 / 0.000	40 / 1.670	167 / 7.014	0 / 0.000	0 / 0.000	0 / 0.000	
IFF Transponder	0 / 0.000	0 / 0.000	46 / 3.399	0 / 0.000	0 / 0.000	0 / 0.000	
Nonrecurring Engineering (NRE)	0 / 2.150	0 / 0.000	0 / 12.822	0 / 0.000	0 / 0.000	0 / 0.000	
Program Management	0 / 3.711	0 / 0.529	0 / 2.638	0 / 0.000	0 / 0.000	0 / 0.000	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS		Modification Number / Title: A00018 / RQ-7 UAV MODS	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: N/A		Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Engineering	0 / 1.295	0 / 0.339	0 / 0.878	0 / 0.000	0 / 0.000	0 / 0.000
Logistics	0 / 1.717	0 / 0.678	0 / 0.572	0 / 0.000	0 / 0.000	0 / 0.000
Communication Relay Installation Kit	0 / 0.000	0 / 0.000	141 / 11.985	0 / 0.000	0 / 0.000	0 / 0.000
<i>Subtotal: Recurring</i>	- / 8.873	- / 3.216	- / 39.308	- / 0.000	- / 0.000	- / 0.000
B Kits						
Recurring						
Shadow Expeditionary Kit	0 / 0.000	0 / 0.000	11 / 19.987	0 / 0.000	0 / 0.000	0 / 0.000
Voice Over Internet Protocol	0 / 0.000	0 / 0.000	104 / 7.150	0 / 0.000	0 / 0.000	0 / 0.000
Attrition Air Vehicles	71 / 56.223	0 / 0.000	1 / 1.775	0 / 0.000	0 / 0.000	0 / 0.000
Mission Computer	0 / 0.000	0 / 0.000	207 / 15.215	0 / 0.000	0 / 0.000	0 / 0.000
Block III Engine	0 / 0.000	0 / 0.000	207 / 15.732	0 / 0.000	0 / 0.000	0 / 0.000
<i>Subtotal: Recurring</i>	- / 56.223	- / 0.000	- / 59.859	- / 0.000	- / 0.000	- / 0.000
<i>Subtotal: SHADOW SYSTEM MODIFICATIONS</i>	71 / 65.096	40 / 3.216	884 / 99.167	0 / 0.000	0 / 0.000	0 / 0.000
Modification Item 3 of 6: SHADOW PAYLOAD UPGRADES/MODIFICATIONS						
A Kits						
Recurring						
Program Management	0 / 3.506	0 / 0.000	0 / 0.000	0 / 1.408	0 / 0.000	0 / 1.408
Engineering	0 / 1.399	0 / 0.000	0 / 0.000	0 / 0.328	0 / 0.000	0 / 0.328
Logistics	0 / 2.698	0 / 0.000	0 / 0.000	0 / 0.328	0 / 0.000	0 / 0.328
EO/IR/LD Universal Interface Assembly	0 / 0.000	0 / 0.000	207 / 14.180	0 / 0.000	0 / 0.000	0 / 0.000
<i>Subtotal: Recurring</i>	- / 7.603	- / 0.000	- / 14.180	- / 2.064	- / 0.000	- / 2.064
B Kits						
Recurring						
Laser Designator	106 / 108.850	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Boresight Tools	0 / 0.000	19 / 1.749	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Training	0 / 5.700	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
<i>Subtotal: Recurring</i>	- / 114.550	- / 1.749	- / 0.000	- / 0.000	- / 0.000	- / 0.000
<i>Subtotal: SHADOW PAYLOAD UPGRADES/ MODIFICATIONS</i>	106 / 122.153	19 / 1.749	207 / 14.180	0 / 2.064	0 / 0.000	0 / 2.064
Modification Item 4 of 6: OSRVT MODIFICATIONS						
A Kits						
Recurring						
Army TIES Retrofit Kits	470 / 56.900	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS		Modification Number / Title: A00018 / RQ-7 UAV MODS	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: N/A		Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Program Management	0 / 14.900	0 / 0.863	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Logistics/TPF/NET	0 / 8.382	0 / 3.904	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Subtotal: Recurring	- / 80.182	- / 4.767	- / 0.000	- / 0.000	- / 0.000	- / 0.000
Non-Recurring						
Non Recurring Engineering	0 / 1.900	0 / 0.670	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
OSRVT Software License	0 / 2.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Engineering/Technical Services	0 / 7.890	0 / 0.863	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Subtotal: Non-Recurring	- / 11.790	- / 1.533	- / 0.000	- / 0.000	- / 0.000	- / 0.000
B Kits						
Recurring						
OSRVT System	20 / 2.858	50 / 8.250	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
OSRVT Retrofit Kits	2,937 / 212.900	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
OSRVT MDAS Antennas	273 / 18.726	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
BI-Directional Retrofit Kits	0 / 0.000	280 / 12.260	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Subtotal: Recurring	- / 234.484	- / 20.510	- / 0.000	- / 0.000	- / 0.000	- / 0.000
Subtotal: OSRVT MODIFICATIONS	3,700 / 326.456	330 / 26.810	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000
Modification Item 5 of 6: Air Vehicle Modifications						
A Kits						
Recurring						
Block III Upgrade Kits	0 / 0.000	0 / 0.000	0 / 0.000	32 / 51.418	0 / 0.000	32 / 51.418
Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.564	0 / 0.000	0 / 0.564
Logistics	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.282	0 / 0.000	0 / 0.282
Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 2.084	0 / 0.000	0 / 2.084
Subtotal: Recurring	- / 0.000	- / 0.000	- / 0.000	- / 54.348	- / 0.000	- / 54.348
Non-Recurring						
Nonrecurring Engineering Obsolescence	0 / 0.000	0 / 0.000	0 / 0.000	0 / 1.500	0 / 0.000	0 / 1.500
Subtotal: Non-Recurring	- / 0.000	- / 0.000	- / 0.000	- / 1.500	- / 0.000	- / 1.500
Subtotal: Air Vehicle Modifications	0 / 0.000	0 / 0.000	0 / 0.000	32 / 55.848	0 / 0.000	32 / 55.848
Modification Item 6 of 6: Ground Support Modifications						
A Kits						
Recurring						
Training NET	0 / 0.000	0 / 0.000	0 / 0.000	0 / 7.980	0 / 0.000	0 / 7.980

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS		Modification Number / Title: A00018 / RQ-7 UAV MODS	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: N/A		Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Program Management	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.885	0 / 0.000	0 / 0.885
Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.252	0 / 0.000	0 / 0.252
Logistics	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.123	0 / 0.000	0 / 0.123
Launchers	0 / 0.000	0 / 0.000	0 / 0.000	23 / 11.742	0 / 0.000	23 / 11.742
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 20.982	- / 0.000	- / 20.982
Non-Recurring						
Nonrecurring Engineering	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.224	0 / 0.000	0 / 0.224
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 0.224	- / 0.000	- / 0.224
B Kits						
Recurring						
GFE	0 / 0.000	0 / 0.000	0 / 0.000	0 / 4.042	0 / 0.000	0 / 4.042
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.000	- / 0.000	- / 4.042	- / 0.000	- / 4.042
<i>Subtotal: Ground Support Modifications</i>	0 / 0.000	0 / 0.000	0 / 0.000	23 / 25.248	0 / 0.000	23 / 25.248
<i>Subtotal: Procurement, All Modification Items</i>	4,112 / 1,650.173	435 / 87.236	1,127 / 320.595	55 / 83.160	0 / 0.000	55 / 83.160
Installation						
<i>Modification Item 1 of 6:</i> SHADOW Version 2 (v2)	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Modification Item 2 of 6:</i> SHADOW SYSTEM MODIFICATIONS	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Modification Item 3 of 6:</i> SHADOW PAYLOAD UPGRADES/MODIFICATIONS	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Modification Item 4 of 6:</i> OSRVT MODIFICATIONS	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Modification Item 5 of 6:</i> Air Vehicle Modifications	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Modification Item 6 of 6:</i> Ground Support Modifications	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
<i>Subtotal: Installation</i>	6 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total						
Total Cost (Procurement + Support + Installation)	1,650.173	87.236	320.595	83.160	-	83.160

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 1 of 6: SHADOW Version 2 (v2)

Manufacturer Information

Manufacturer Name: AAI	Manufacturer Location: Hunt Valley, MD
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP Contract

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

PYS	FY 2016				FY 2017				FY 2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 2 of 6: SHADOW SYSTEM MODIFICATIONS

Manufacturer Information

Manufacturer Name: AAI		Manufacturer Location: Hunt Valley, MD	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 6	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP Contract

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 3 of 6: SHADOW PAYLOAD UPGRADES/MODIFICATIONS

Manufacturer Information

Manufacturer Name: AAI		Manufacturer Location: Hunt Valley, MD	
Administrative Leadtime (in Months): 6		Production Leadtime (in Months): 6	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP Contract

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 4 of 6: OSRVT MODIFICATIONS

Manufacturer Information

Manufacturer Name: AAI		Manufacturer Location: Hunt Valley, MD	
Administrative Leadtime (in Months): 4		Production Leadtime (in Months): 12	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP Contract

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 5 of 6: Air Vehicle Modifications

Manufacturer Information

Manufacturer Name: AAI		Manufacturer Location: Hunt Valley, MD	
Administrative Leadtime (in Months): 18		Production Leadtime (in Months): 18	
Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A00018 / RQ-7 UAV MODS	Modification Number / Title: A00018 / RQ-7 UAV MODS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Modification Item 6 of 6: Ground Support Modifications

Manufacturer Information

Manufacturer Name: AAI	Manufacturer Location: Hunt Valley, MD
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 18

Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	0 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	1 / 0.000	0 / 0.000	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft	P-1 Line Item Number / Title: A01002 / UAS MODS
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109	19.076	15.737	5.908	2.000	-	96.574
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109	19.076	15.737	5.908	2.000	-	96.574
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109	19.076	15.737	5.908	2.000	-	96.574

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The One System Remote Video Terminal (OSRVT) systems require an update to an Increment II OSRVT. The OSRVT Increment II Upgrade Program of Record (POR) began in FY 2012. The OSRVT Increment II consists of a Remote Operations Video Enhanced Receiver (ROVER), Miltope tablet, Antennas, UHF Modem, Type I encryption, and an extended range Mobile Directional Antennas System (MDAS). Software supports decoding Telemetry Data from multiple Unmanned Aircraft Systems (UASs), provides Electro-Optical (EO)/Infrared (IR) payload control, and supports off-target calculations.

The OSRVT MODS APE A000121000, begins in FY 2017. Prior to FY2017, OSRVT Procurement funds were provided via the SHADOW MODS APE A00018000.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	27.744	22.109	-	22.109	15.476	13.737	3.908
ANG	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	-	4.000	-	4.000	3.600	2.000	2.000
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
	Total Obligation Authority	-	27.744	26.109	-	26.109	19.076	15.737	5.908

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 02: Modification of Aircraft / BSA 10: Modification of Aircraft **P-1 Line Item Number / Title:**
 A01002 / UAS MODS

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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-3a	A00121 / OSRVT (UNCLASSIFIED)				- / -	- / -	- / 27.744	- / 26.109	- / -	- / 26.109
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / 27.744	- / 26.109	- / -	- / 26.109

*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:

FY 2018 Base funding of \$26.109 million provides for production of 35 OSRVT systems, as part of an Army Procurement Objective (APO) increase to support the Army Airborne Command and Control System (A2C2S), and the production of 1,003 Bi-Directional Retrofit Kits (BD-Retrofit Kits). The FY 2018 Base funding also supports Installation, Recurring Engineering, Systems Engineering, Logistics, Fielding, New Equipment Training (NET), and Program Management (PM).

In accordance with 1815 of the FY 2008 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.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01002 / UAS MODS	Modification Number / Title: A00121 / OSRVT

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	27.744	26.109	-	26.109

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-

Description:

The One System Remote Video Terminal (OSRVT) systems requires an update to an Increment II OSRVT. The OSRVT Increment II Upgrade Program of Record (POR) began in FY 2012. The OSRVT Increment II consists of a Remote Operations Video Enhanced Receiver (ROVER), Miltope tablet, Antennas, UHF Modem, Type I encryption, and an extended range Mobile Directional Antennas System (MDAS). Software supports decoding Telemetry Data from multiple Unmanned Aircraft Systems (UASs), provides Electro-Optical (EO)/ Infrared (IR) payload control, and supports off target calculations.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	-	27.744	22.109	-	22.109
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	-	-	4.000	-	4.000
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	-	27.744	26.109	-	26.109

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10			P-1 Line Item Number / Title: A01002 / UAS MODS		Modification Number / Title: A00121 / OSRVT	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: N/A		Modification Type: UNCLASSIFIED			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement						
<i>Modification Item 1 of 1: OSRVT MODS</i>						
B Kits						
Recurring						
OSRVT System	0 / 0.000	0 / 0.000	59 / 9.540	35 / 5.802	0 / 0.000	35 / 5.802
Bi-Directional Retrofit Kits	0 / 0.000	0 / 0.000	750 / 10.030	1,003 / 13.614	0 / 0.000	1,003 / 13.614
MDAS	0 / 0.000	0 / 0.000	8 / 0.987	0 / 0.000	0 / 0.000	0 / 0.000
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / 0.000</i>	<i>- / 20.557</i>	<i>- / 19.416</i>	<i>- / 0.000</i>	<i>- / 19.416</i>
Non-Recurring						
Non-Recurring Engineering	0 / 0.000	0 / 0.000	0 / 0.802	0 / 0.963	0 / 0.000	0 / 0.963
Program Management	0 / 0.000	0 / 0.000	0 / 0.868	0 / 0.878	0 / 0.000	0 / 0.878
Engineering/Technical Services	0 / 0.000	0 / 0.000	0 / 0.868	0 / 0.878	0 / 0.000	0 / 0.878
Logistics/TPF/NET	0 / 0.000	0 / 0.000	0 / 4.649	0 / 3.974	0 / 0.000	0 / 3.974
<i>Subtotal: Non-Recurring</i>	<i>- / 0.000</i>	<i>- / 0.000</i>	<i>- / 7.187</i>	<i>- / 6.693</i>	<i>- / 0.000</i>	<i>- / 6.693</i>
<i>Subtotal: OSRVT MODS</i>	<i>0 / 0.000</i>	<i>0 / 0.000</i>	<i>817 / 27.744</i>	<i>1,038 / 26.109</i>	<i>0 / 0.000</i>	<i>1,038 / 26.109</i>
<i>Subtotal: Procurement, All Modification Items</i>	<i>0 / 0.000</i>	<i>0 / 0.000</i>	<i>817 / 27.744</i>	<i>1,038 / 26.109</i>	<i>0 / 0.000</i>	<i>1,038 / 26.109</i>
Installation						
<i>Modification Item 1 of 1: OSRVT MODS</i>						
<i>Subtotal: Installation</i>	<i>- / -</i>	<i>- / -</i>	<i>0 / 0.000</i>	<i>0 / 0.000</i>	<i>- / -</i>	<i>0 / 0.000</i>
Total						
Total Cost (Procurement + Support + Installation)	-	-	27.744	26.109	-	26.109

UNCLASSIFIED

Exhibit P-3a, Individual Modification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 02 / 10	P-1 Line Item Number / Title: A01002 / UAS MODS	Modification Number / Title: A00121 / OSRVT
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Modification Item 1 of 1: OSRVT MODS

Manufacturer Information

Manufacturer Name: Textron/AAI	Manufacturer Location: Hunt Valley, MD
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 12

Dates	FY 2016	FY 2017	FY 2018
Contract Dates			
Delivery Dates			

Installation Information

Method of Implementation: FFP Contract

Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2016	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2017	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000
FY 2018	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000
Total	- / -	- / -	0 / 0.000	0 / 0.000	- / -	0 / 0.000

Installation Schedule

PYS	PYS	FY 2016				FY 2017				FY 2018			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	1	0	0	0	0	0	0	0	0	0	0	0	0
Out	1	0	0	0	0	0	0	0	0	0	0	0	0

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 10: Ground Support Avionics

P-1 Line Item Number / Title:
 AZ3504 / Aircraft Survivability Equipment

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	12	24	-	24	24	24	24	24	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	541.257	56.215	67.377	70.913	-	70.913	56.256	101.238	78.530	99.251	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	11.565	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Net Procurement (P-1) (<i>\$ in Millions</i>)	529.692	56.215	67.377	70.913	-	70.913	56.256	101.238	78.530	99.251	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	11.565	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Total Obligation Authority (<i>\$ in Millions</i>)	541.257	56.215	67.377	70.913	-	70.913	56.256	101.238	78.530	99.251	Continuing	Continuing

(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>)	-	-	5,614.750	2,954.708	-	2,954.708	2,344.000	4,218.250	3,272.083	4,135.458	Continuing	Continuing

Description:

The Aircraft Survivability Equipment (ASE) budget line includes ASE Laser Countermeasures (AZ3508) and ASE Radio Frequency Countermeasures (AZ3511).

AZ3508 ASE Laser CM

Army Procurement Objective (APO) = 1,332 (APO based on B-Kits)

The AN/AVR-2B Laser Detecting Set (LDS) installed on Army rotary-wing aircraft passively detects laser-aided weapons targeting the aircraft and alerts aircrews, allowing them to engage the threat or maneuver to break the targeting. The system detects aircraft illumination by laser rangefinders, laser target designators, and laser beam rider surface-to-air missiles. The system provides the aircrew visual and aural warnings prioritized by threat lethality using 360 degree azimuth and 90 degree elevation field of view coverage.

AZ3511 Radio Frequency CM

APO = 1,200 (APO based on B-Kits)

The objective of the Aircraft Survivability Equipment (ASE) Development project is to improve Radio Frequency (RF) ASE for Army aviation. The APR-39 Radar Warning Receiver (RWR) detects, categorizes, and prioritizes Radio Frequency (RF) emitters and provides a visual / aural alert to aircrew members warning them of targeting by RF-guided weapons. The Milestone Decision Authority (MDA) approved Phases 1 and 2 of a 3-phased path forward.

Phase 1 serves as an obsolescence / sustainment upgrade to the Processor Line Replaceable Unit (LRU) of the AN/APR-39A(V) Radar Warning Receiver (RWR) implemented to ensure that the currently fielded system remains viable until affordable improved RF ASE capability can be pursued in Phases 2 and 3.

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics	P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Phase 2, RWR Modernization, adopts the ongoing United States Navy Class I RWR Engineering Change Proposal (ECP), commonly referred to as the APR-39D(V)2 system. APR-39D(V)2 will significantly improve the RF threat coverage, automatic detection and identification of threat types, bearing, and lethality. Under Phase 2, the Army will develop enhancements to the APR-39D(V)2 to keep the APR-39D(V)2 technically relevant and address emerging Low Probability Intercept (LPI) and frequency agile threats.

Phase 3 adds active Electronic Countermeasures (ECM) jamming capability for selected aircraft; Materiel Development Decision (MDD) for this ECM jamming capability phase is not expected until later in the Future Years Defense Program (FYDP).

	Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	12	24	-	24	24	24	24	24
	Total Obligation Authority	56.215	67.377	70.913	-	70.913	56.256	101.238	78.530	99.251
Total: Secondary Distribution	Quantity	-	12	24	-	24	24	24	24	24
	Total Obligation Authority	56.215	67.377	70.913	-	70.913	56.256	101.238	78.530	99.251

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics
P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AZ3508 / ASE Laser CM	P-5a			- / 386.498	- / 27.485	- / 16.952	- / 13.170	- / -	- / 13.170
P-5	AZ3511 / Radio Frequency CM	P-5a, P-21			- / 154.759	- / 28.730	12 / 50.425	24 / 57.743	- / -	24 / 57.743
P-40	Total Gross/Weapon System Cost				- / 541.257	- / 56.215	12 / 67.377	24 / 70.913	- / -	24 / 70.913

*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:
 AZ3508 ASE Laser CM: Fiscal Year (FY) 2018 Base procurement dollars in the amount of \$13.170 million funds A-Kit installation on Rotary Wing aircraft in support of required operational capabilities and integration of AN/AVR-2B LDS with other ASE systems.

 AZ3511 Radio Frequency CM: Fiscal Year (FY) 2018 Base Procurement dollars in the amount of \$57.743 million funds procurement and fielding of B-Kits and A-Kits for Rotary Wing aircraft.

 In accordance with Section 1815 of the FY 2008 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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment	Item Number / Title [DODIC]: AZ3508 / ASE Laser CM
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	386.498	27.485	16.952	13.170	-	13.170
Less PY Advance Procurement (\$ in Millions)	11.565	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	374.933	27.485	16.952	13.170	-	13.170
Plus CY Advance Procurement (\$ in Millions)	11.565	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	386.498	27.485	16.952	13.170	-	13.170

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Recurring Production	-	-	160.425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Engineering (A-Kit)	-	-	11.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A-Kit Procurement ^(†)	66.145	442	29.236	55.276	225	12.437	54.978	225	12.370	-	-	-	-	-	-	-	-	-
A-Kit Installation	79.197	406	32.154	68.446	130	8.898	86.000	18	1.548	94.589	95	8.986	-	-	-	94.589	95	8.986
A-Kit filters	3.482	901	3.137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-Kit Procurement	62.474	1,332	83.216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Production (Brackets)	-	-	4.051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prime Contractor Program Mgt	-	-	5.833	-	-	0.337	-	-	1.309	-	-	0.300	-	-	-	-	-	0.300
Systems Engineering	-	-	13.081	-	-	1.328	-	-	0.797	-	-	0.619	-	-	-	-	-	0.619
Program Management	-	-	5.173	-	-	1.302	-	-	0.898	-	-	0.698	-	-	-	-	-	0.698
Systems Test and Evaluation	-	-	8.797	-	-	2.080	-	-	-	-	-	2.537	-	-	-	-	-	2.537
Training	-	-	8.375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	-	-	3.951	-	-	1.103	-	-	-	-	-	-	-	-	-	-	-	-
Fielding	-	-	2.870	-	-	-	-	-	0.030	-	-	0.030	-	-	-	-	-	0.030
Other Procurement	-	-	14.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	386.499	-	-	27.485	-	-	16.952	-	-	13.170	-	-	-	-	-	13.170
<i>Subtotal: Flyaway Cost</i>	-	-	386.499	-	-	27.485	-	-	16.952	-	-	13.170	-	-	-	-	-	13.170

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10						P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment						Item Number / Title [DODIC]: AZ3508 / ASE Laser CM					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Gross/Weapon System Cost	-	-	386.498	-	-	27.485	-	-	16.952	-	-	13.170	-	-	-	-	-	13.170

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	27.485	16.952	13.170	-	13.170
Total:	Quantity	-	-	-	-	-
Secondary Distribution	Total Obligation Authority	27.485	16.952	13.170	-	13.170

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment	Item Number / Title [DODIC]: AZ3508 / ASE Laser CM
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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
A-Kit Procurement		2016	Lockheed Martin / Blue Grass Army Depot, KY	C / FFP	SOFSA, Blue Grass Army Depot	May 2016	Dec 2016	225	55.280			
A-Kit Procurement		2017	Lockheed Martin / Blue Grass Army Depot, KY	C / FFP	SOFSA, Blue Grass Army Depot	May 2017	Dec 2017	225	54.978			

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Exhibit P-5, Cost Analysis: FY 2018 Army					Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10			P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment			Item Number / Title [DODIC]: AZ3511 / Radio Frequency CM		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)			-	-	12	24	-	24
Gross/Weapon System Cost (\$ in Millions)			154.759	28.730	50.425	57.743	-	57.743
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			154.759	28.730	50.425	57.743	-	57.743
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			154.759	28.730	50.425	57.743	-	57.743
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	4,202.083	2,405.958	-	2,405.958

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Non Recurring Cost																		
A-Kit NRE	-	-	111.542	-	-	10.381	-	-	3.815	-	-	17.585	-	-	-	-	-	17.585
<i>Subtotal: Non Recurring Cost</i>	-	-	111.542	-	-	10.381	-	-	3.815	-	-	17.585	-	-	-	-	-	17.585
Subtotal: Flyaway Cost	-	-	111.542	-	-	10.381	-	-	3.815	-	-	17.585	-	-	-	-	-	17.585
Hardware Cost																		
Recurring Cost																		
A-Kit Procurement	-	-	-	-	-	-	68.260	50	3.413	93.740	50	4.687	-	-	-	93.740	50	4.687
A-Kit Installs	-	-	-	-	-	-	-	-	6.371	-	-	2.036	-	-	-	-	-	2.036
B-Kit Procurement ^(†)	921.600	20	18.432	-	-	-	956.833	12	11.482	974.917	24	23.398	-	-	-	974.917	24	23.398
Replacement Flight Line Test Sets	-	-	2.278	-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-
Retrofit	-	-	-	-	-	3.221	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	20.710	-	-	4.721	-	-	21.266	-	-	30.121	-	-	-	-	-	30.121
Non Recurring Cost																		
System Test and Evaluation	-	-	0.874	-	-	0.454	-	-	5.432	-	-	0.664	-	-	-	-	-	0.664
Other	-	-	8.300	-	-	1.700	-	-	3.266	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	9.174	-	-	2.154	-	-	8.698	-	-	0.664	-	-	-	-	-	0.664
Subtotal: Hardware Cost	-	-	29.884	-	-	6.875	-	-	29.964	-	-	30.785	-	-	-	-	-	30.785
Software Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10						P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment						Item Number / Title [DODIC]: AZ3511 / Radio Frequency CM					

ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Non Recurring Cost																		
Mission Data Set (MDS)	-	-	0.234	-	-	3.800	-	-	6.506	-	-	-	-	-	-	-	-	-
Other	-	-	8.359	-	-	-	-	-	3.348	-	-	0.084	-	-	-	-	-	0.084
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>8.593</i>	-	-	<i>3.800</i>	-	-	<i>9.854</i>	-	-	<i>0.084</i>	-	-	<i>-</i>	-	-	<i>0.084</i>
<i>Subtotal: Software Cost</i>	-	-	<i>8.593</i>	-	-	<i>3.800</i>	-	-	<i>9.854</i>	-	-	<i>0.084</i>	-	-	<i>-</i>	-	-	<i>0.084</i>
Logistics Cost																		
Recurring Cost																		
Training	-	-	0.304	-	-	-	-	-	0.446	-	-	0.421	-	-	-	-	-	0.421
Fielding	-	-	0.292	-	-	0.714	-	-	0.302	-	-	1.118	-	-	-	-	-	1.118
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.596</i>	-	-	<i>0.714</i>	-	-	<i>0.748</i>	-	-	<i>1.539</i>	-	-	<i>-</i>	-	-	<i>1.539</i>
Non Recurring Cost																		
Other	-	-	0.317	-	-	0.610	-	-	0.894	-	-	1.639	-	-	-	-	-	1.639
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.317</i>	-	-	<i>0.610</i>	-	-	<i>0.894</i>	-	-	<i>1.639</i>	-	-	<i>-</i>	-	-	<i>1.639</i>
<i>Subtotal: Logistics Cost</i>	-	-	<i>0.913</i>	-	-	<i>1.324</i>	-	-	<i>1.642</i>	-	-	<i>3.178</i>	-	-	<i>-</i>	-	-	<i>3.178</i>
Support - Program Management Cost																		
Contractor Management	-	-	2.209	-	-	5.013	-	-	2.413	-	-	3.597	-	-	-	-	-	3.597
Government Management	-	-	1.059	-	-	1.337	-	-	1.908	-	-	2.094	-	-	-	-	-	2.094
<i>Subtotal: Support - Program Management Cost</i>	-	-	<i>3.268</i>	-	-	<i>6.350</i>	-	-	<i>4.321</i>	-	-	<i>5.691</i>	-	-	<i>-</i>	-	-	<i>5.691</i>
Support - System Engineering Cost																		
System Engineering	-	-	0.559	-	-	-	-	-	0.829	-	-	0.421	-	-	-	-	-	0.421
<i>Subtotal: Support - System Engineering Cost</i>	-	-	<i>0.559</i>	-	-	<i>-</i>	-	-	<i>0.829</i>	-	-	<i>0.421</i>	-	-	<i>-</i>	-	-	<i>0.421</i>
Gross/Weapon System Cost	-	-	154.759	-	-	28.730	4,202.083	12	50.425	2,405.958	24	57.743	-	-	2,405.958	24	57.743	

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	12	24	-	24
	Total Obligation Authority	28.730	50.425	57.743	-	57.743
Total:	Quantity	-	12	24	-	24
Secondary Distribution	Total Obligation Authority	28.730	50.425	57.743	-	57.743

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment	Item Number / Title [DODIC]: AZ3511 / Radio Frequency CM
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment	Item Number / Title [DODIC]: AZ3511 / Radio Frequency CM
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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
B-Kit Procurement ^(†)		2015	Northrop Grumman / Rolling Meadows, IL	SS / IDIQ	TBD	Aug 2015	Jan 2017	20	921.600			
B-Kit Procurement ^(†)		2017	Northrop Grumman / Rolling Meadows, IL	SS / IDIQ	TBD	Jun 2017	Nov 2018	12	956.833			
B-Kit Procurement ^(†)		2018	Northrop Grumman / Rolling Meadows, IL	SS / IDIQ	TBD	Jan 2018	Jun 2019	24	974.920			

^(†) indicates the presence of a P-21

Remarks:
Fiscal Year (FY) 2017 and 2018 leverages Navy contract for B-Kit procurements.

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Exhibit P-21, Production Schedule: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10 **P-1 Line Item Number / Title:** AZ3504 / Aircraft Survivability Equipment **Item Number / Title [DODIC]:** AZ3511 / Radio Frequency CM

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							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
B-Kit Procurement																															
	1	2015	ARMY	20	0	20	-	-	-	2	2	4	6	6															0		
	1	2017	ARMY	12	0	12									A	-	-	-	-	-	-	-	-	-	-	-	-	-	12		
	1	2018	ARMY	24	0	24																							24		
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10 **P-1 Line Item Number / Title:** AZ3504 / Aircraft Survivability Equipment **Item Number / Title [DODIC]:** AZ3511 / Radio Frequency CM

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							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
B-Kit Procurement																															
1		2015	ARMY	20	20	0																							0		
1		2017	ARMY	12	0	12	-	2	2	2	2	2	2																0		
1		2018	ARMY	24	0	24	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2		0		
							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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10		P-1 Line Item Number / Title: AZ3504 / Aircraft Survivability Equipment
		Item Number / Title [DODIC]: AZ3511 / Radio Frequency CM

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Northrop Grumman - Rolling Meadows, IL	2	10	21	0	3	15	18	0	3	15	18

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
10: Ground Support Avionics

P-1 Line Item Number / Title:
AZ3507 / Survivability CM

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	64.212	8.917	9.565	5.884	-	5.884	6.076	3.915	-	-	6.256	104.825
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	64.212	8.917	9.565	5.884	-	5.884	6.076	3.915	-	-	6.256	104.825
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	64.212	8.917	9.565	5.884	-	5.884	6.076	3.915	-	-	6.256	104.825

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Advanced Threat Infrared Countermeasure (ATIRCM) is an infrared (IR) countermeasure system that interfaces with the Common Missile Warning System (CMWS) to provide near spherical protection of the host aircraft platform in order to defeat IR threat missiles. The operational concept of ATIRCM is as part of the Suite of Integrated Infrared Countermeasures (SIIRCM). The core components of the SIIRCM concept are: a Missile Warning System (MWS), expendable countermeasures (flares) and a laser based IR countermeasure (IRCM). The CMWS detects, declares, and initiates IRCM against IR-guided Surface-to-Air Missiles (SAM) or Air-to-Air Missiles (AAM). ATIRCM takes a hand-off cue from CMWS and then takes immediate action as a laser based countermeasure against the incoming threat missile.

The A-Kit for ATIRCM includes mounting hardware, wiring harnesses, and other components necessary to install and interface the mission kit on host aircraft. The ATIRCM B-Kit is the mission kit (laser, optical coupler, infrared jam head, and jam head control unit) required to achieve near spherical coverage for an aircraft.

The ATIRCM program is a post-Milestone C, Acquisition Category (ACAT) 1C program of record fielded on CH-47F aircraft.

The approved Army Acquisition Objective (AAO) for ATIRCM is 340 A-Kits and 120 B-Kits.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.917	9.565	5.884	-	5.884	6.076	3.915	-	-
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	8.917	9.565	5.884	-	5.884	6.076	3.915	-	-

Justification:

Fiscal Year (FY) 2018 Base Procurement dollars in the amount of \$5.884 million fund A-Kit and Pod Bay Door installations, Jam Code update testing to counter emerging Man-Portable Air Defense System (MANPADS) threats, and support across the CH-47F aircraft fleet to include integration requiring recurring modification work order activities.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics		P-1 Line Item Number / Title: AZ3507 / Survivability CM
ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		

In accordance with Section 1815 of the FY 2008 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 responses, and providing military support to civil authorities.

All COMPO 1 Active

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 10: Ground Support Avionics

P-1 Line Item Number / Title:
 AZ3517 / CMWS

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605051A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	108	108	-	-	-	-	-	108
Gross/Weapon System Cost (<i>\$ in Millions</i>)	534.384	104.348	97.741	26.825	139.742	166.567	32.719	18.775	10.917	61.000	41.030	1,067.481
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	534.384	104.348	97.741	26.825	139.742	166.567	32.719	18.775	10.917	61.000	41.030	1,067.481
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	534.384	104.348	97.741	26.825	139.742	166.567	32.719	18.775	10.917	61.000	41.030	1,067.481

(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>)	-	-	-	-	1,293.907	1,542.287	-	-	-	-	-	9,884.083

Description:

Army Procurement Objective (APO) = 1,351 (B-Kits)

The US Army operational requirements concept for Aviation Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). SIIRCM is an integrated warning and countermeasure system to enhance aircraft survivability against IR-guided threat missile systems. The Common Missile Warning System (CMWS) is a core element of the SIIRCM concept. CMWS is an integrated ultraviolet (UV) missile warning system, with an Improved Countermeasure Dispenser (ICMD) serving as a subsystem to a host aircraft.

The CMWS program is a UV missile warning system that cues both flare and laser-based countermeasures to defeat incoming IR-seeking missiles and will alert aircrews to the presence of certain incoming unguided munitions. The B-Kit consists of the components which perform the missile detection and aircrew notification, unguided munitions detection and aircrew notification, false alarm rejection, and countermeasure employment/cueing functions of the system. The CMWS Electronic Control Unit (ECU) receives UV missile detection data from Electro-Optic Missile Sensors (EOMS) and sends a missile alert signal to warn aircrews via on-board avionics. Tier 1 threat missiles detected and tracked by the CMWS are subsequently defeated by a combination of missile seeker countermeasures, including decoy flares and IR Laser Jamming (currently Advanced Threat Infrared Countermeasures (ATIRCM)-equipped CH-47 platform only). In addition, the CMWS ECU receives from the EOMS unguided munitions detection data which is also passed to the aircrew through aural and visual cues. The aircrew then applies the appropriate Tactics, Techniques and Procedures (TTPs) to break contact or engage the enemy with on-ship ordnance. The CMWS Generation 3 (Gen 3) ECU in conjunction with ongoing software development efforts will address outstanding materiel release conditions to achieve a Full Materiel Release (FMR) for CMWS and ensure protection against emerging IR-guided missile threats.

The A-Kit for CMWS includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type.

APO = 42 (B-Kits)

Joint Urgent Operational Needs Statement (JUONS) SO-0010 will integrate the Department of the Navy Large Aircraft Infrared Countermeasure (DoN LAIRCM) system on a select number of Army and Special Operations Command (SOCOM) aircraft in the threat area of responsibility. The purpose of this JUONS is to detect and defeat proliferate Surface-to-Air Missiles (SAM) threats. Advanced Threat Warner & Common Infrared Countermeasures Quick Reaction Capability (ATW & CIRCM QRC) addresses the Headquarters Department of the Army (HQDA) Directed Requirement to this JUONS to reduce Space, Weight and Power (SWaP) and accelerate delivery of CIRCMs. Army ATW Processor (AAP) contributes to both the weight and power reductions. Funding in this program element resources the systems engineering and production of the ATW sensor and the AAP.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 10: Ground Support Avionics

P-1 Line Item Number / Title:
 AZ3517 / CMWS

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605051A

Line Item MDAP/MAIS Code: N/A

Joint Staff, J-8 Deputy Director for Requirements (DDR) memorandum, April 24, 2015
 SOCOM JUONs SO-0010, Joint Rapid Acquisition Cell (JRAC) memorandum, May 29, 2015
 Directed Requirement for the Advanced Threat Warner and Common Infrared Countermeasure Quick Reaction Capability (ATW & CIRCM QRC) to Support Joint Urgent Operational Need (JUON) SO-0010,
 CIRCM Critical Intelligence Parameters Breach, 18 December 2015

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	108	108	-	-	-	-
	Total Obligation Authority	104.348	97.741	26.825	139.742	166.567	32.719	18.775	10.917	61.000
Total: Secondary Distribution	Quantity	-	-	-	108	108	-	-	-	-
	Total Obligation Authority	104.348	97.741	26.825	139.742	166.567	32.719	18.775	10.917	61.000

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics **P-1 Line Item Number / Title:** AZ3517 / CMWS

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0605051A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AZ3517 / CMWS	P-5a, P-21			- / 534.384	- / 104.348	- / 97.741	- / 26.825	108 / 139.742	108 / 166.567
P-40	Total Gross/Weapon System Cost				- / 534.384	- / 104.348	- / 97.741	- / 26.825	108 / 139.742	108 / 166.567

*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:
 Fiscal Year (FY) 2018 Base procurement dollars in the amount of \$26.825 million supports CMWS A-Kit Installations, B-Kit Installations, software modifications, software transition to sustainment, threat asset acquisition, and system test and evaluation efforts.

JUONS SO-0010 and ATW & CIRCM QRC: FY 2018 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$16.470 million supports JUONS field support, Contractor Logistics Support (CLS) and Program Management. FY 2018 OCO procurement dollars in the amount of \$123.272 million supports ATW & CIRCM QRC procurement of ATW B-Kits ((ATW sensor, Control Interface Unit (CIU), AAP) and PCMCIA cards), field test equipment (MEONS) and Program Management.

In accordance with Section 1815 of the FY 2008 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.

All COMPO 1 Active

UNCLASSIFIED

Exhibit P-5, Cost Analysis: FY 2018 Army						Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10			P-1 Line Item Number / Title: AZ3517 / CMWS			Item Number / Title [DODIC]: AZ3517 / CMWS		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)			-	-	-	-	108	108
Gross/Weapon System Cost (\$ in Millions)			534.384	104.348	97.741	26.825	139.742	166.567
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			534.384	104.348	97.741	26.825	139.742	166.567
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			534.384	104.348	97.741	26.825	139.742	166.567
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	-	-	1,293.907	1,542.287

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Hardware Cost																		
Recurring Cost																		
CMWS A-Kit Fixed Wing Installation	-	-	36.406	-	-	8.003	922.222	9	8.300	-	-	1.000	-	-	-	-	-	1.000
CMWS A-Kit Rotary Wing Installation	-	-	6.570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMWS Gen 3 ECU Hardware ^(†)	261.671	432	113.042	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMWS Gen 3 User Data Module (UDM)	-	-	-	-	-	9.607	-	-	-	-	-	-	-	-	-	-	-	-
CMWS Other Recurring Prod (Software/Engineer)	-	-	116.464	-	-	43.832	-	-	14.065	-	-	9.889	-	-	-	-	-	9.889
CMWS Systems Engineering	-	-	19.709	-	-	3.526	-	-	2.310	-	-	1.500	-	-	-	-	-	1.500
CMWS Program Management	-	-	16.125	-	-	4.309	-	-	1.890	-	-	1.200	-	-	-	-	-	1.200
CMWS Systems Test and Evaluation	-	-	50.065	-	-	7.783	-	-	10.894	-	-	7.276	-	-	-	-	-	7.276
JUONS SO-0010 A-Kit Procurement	-	-	3.294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JUONS SO-0010 A-Kit Installation	-	-	1.500	-	-	9.596	250.794	63	15.800	-	-	-	-	-	-	-	-	-
JUONS SO-0010 B-Kit Procurement	-	-	135.357	-	-	0.100	3,307.857	7	23.155	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: FY 2018 Army													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10							P-1 Line Item Number / Title: AZ3517 / CMWS						Item Number / Title [DODIC]: AZ3517 / CMWS					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
JUONS SO-0010 Systems Engineering	-	-	-	-	-	0.323	-	-	2.035	-	-	-	-	-	2.733	-	-	2.733
JUONS SO-0010 Program Management	-	-	-	-	-	0.395	-	-	1.670	-	-	-	-	-	2.237	-	-	2.237
JUONS SO-0010 Systems Test & Evaluation	-	-	1.361	-	-	6.173	-	-	3.000	-	-	-	-	-	-	-	-	-
JUONS SO-0010 Fielding	-	-	-	-	-	9.413	-	-	10.455	-	-	-	-	-	6.500	-	-	6.500
JUONS SO-0010 Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.000	-	-	5.000
ATW & CIRCM QRC ATW B-Kit Procurement ^(f)	-	-	-	-	-	-	-	-	-	-	-	-	1,118.157	108	120.761	1,118.157	108	120.761
ATW & CIRCM QRC PCMCIA Cards Procurement	-	-	-	-	-	-	-	-	-	-	-	-	1.075	400	0.430	1.075	400	0.430
ATW & CIRCM QRC MEONS Procurement	-	-	-	-	-	-	-	-	-	-	-	-	147.000	10	1.470	147.000	10	1.470
ATW & CIRCM QRC Systems Engineering	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.336	-	-	0.336
ATW & CIRCM QRC Program Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.275	-	-	0.275
Subtotal: Recurring Cost	-	-	499.893	-	-	103.060	-	-	93.574	-	-	20.865	-	-	139.742	-	-	160.607
Non Recurring Cost																		
CMWS Other Modifications (5th Sensor and P3I)	-	-	2.073	-	-	-	-	-	1.558	-	-	2.155	-	-	-	-	-	2.155
CMWS Other Procurement	-	-	3.176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	5.249	-	-	-	-	-	1.558	-	-	2.155	-	-	-	-	-	2.155
Subtotal: Hardware Cost	-	-	505.142	-	-	103.060	-	-	95.132	-	-	23.020	-	-	139.742	-	-	162.762
Support - Fielding Cost																		
Fielding	-	-	23.627	-	-	1.288	-	-	1.044	-	-	1.713	-	-	-	-	-	1.713
Subtotal: Support - Fielding Cost	-	-	23.627	-	-	1.288	-	-	1.044	-	-	1.713	-	-	-	-	-	1.713
Support - Training Cost																		
Equipment	-	-	5.615	-	-	-	-	-	1.565	-	-	2.092	-	-	-	-	-	2.092
Subtotal: Support - Training Cost	-	-	5.615	-	-	-	-	-	1.565	-	-	2.092	-	-	-	-	-	2.092

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10						P-1 Line Item Number / Title: AZ3517 / CMWS						Item Number / Title [DODIC]: AZ3517 / CMWS					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Gross/Weapon System Cost	-	-	534.384	-	-	104.348	-	-	97.741	-	-	26.825	1,293.907	108	139.742	1,542.287	108	166.567

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	108	108
	Total Obligation Authority	104.348	97.741	26.825	139.742	166.567
Total:	Quantity	-	-	-	108	108
Secondary Distribution	Total Obligation Authority	104.348	97.741	26.825	139.742	166.567

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3517 / CMWS	Item Number / Title [DODIC]: AZ3517 / CMWS
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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
CMWS Gen 3 ECU Hardware		2014	BAE Systems / Nashua, NH	SS / FFP	AMCOM Contracting Command, RSA	May 2014	Feb 2015	216	158.796			
ATW & CIRCM QRC ATW B-Kit Procurement ^(†)	✓	2018	Northrop Grumman / Rolling Meadows, IL	SS / FPIF	AMCOM Contracting Command, RSA	Dec 2017	Dec 2018	108	1,118.160			

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3517 / CMWS	Item Number / Title [DODIC]: AZ3517 / CMWS
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C C O	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
ATW & CIRCM QRC ATW B-Kit Procurement																															
✓	1	2018	ARMY	108	0	108																								108	
							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	

UNCLASSIFIED

Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3517 / CMWS	Item Number / Title [DODIC]: AZ3517 / CMWS
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
O C C O	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
ATW & CIRCM QRC ATW B-Kit Procurement																															
✓	1	2018	ARMY	108	0	108																						108			
							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: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10 **P-1 Line Item Number / Title:** AZ3517 / CMWS **Item Number / Title [DODIC]:** AZ3517 / CMWS

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE							
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019																		
							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						
ATW & CIRCM QRC ATW B-Kit Procurement																																					
✓	1	2018	ARMY	108	0	108				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	15	15	15	15	15	3		0
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3517 / CMWS	Item Number / Title [DODIC]: AZ3517 / CMWS
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Northrop Grumman - Rolling Meadows, IL	3	15	20	0	9	3	12	0	9	3	12

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics	P-1 Line Item Number / Title: AZ3537 / CIRCM
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	30	30	24	48	48	48	908	1,106
Gross/Weapon System Cost (<i>\$ in Millions</i>)	-	-	108.721	6.337	43.440	49.777	52.460	106.500	120.851	148.498	1,813.840	2,400.647
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	-	-	108.721	6.337	43.440	49.777	52.460	106.500	120.851	148.498	1,813.840	2,400.647
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	-	-	108.721	6.337	43.440	49.777	52.460	106.500	120.851	148.498	1,813.840	2,400.647

(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>)	-	-	-	-	1,448.000	1,659.233	2,185.833	2,218.750	2,517.729	3,093.708	1,997.621	2,170.567

Description:

Army Procurement Objective (APO) = 1,076 (B-Kits only)
 The Common Infrared Countermeasure (CIRCM) budget line includes CIRCM (AZ3537), and funding to counter emerging technology as identified in Joint Urgent Operational Needs Statement (JUONS) SO-0010 Phase 2a and the Headquarters Department of the Army (HQDA) Directed Requirement for the Advanced Threat Warner Common Infrared Countermeasures Quick Reaction Capability (ATW & CIRCM QRC).

CIRCM (AZ3537)

The Common Infrared Countermeasure (CIRCM) is the next generation lightweight, laser-based Infrared Countermeasure (IRCM) component that will interface with both the Army's Common Missile Warning System (CMWS) and future missile warning systems (MWS) to defeat current and emerging missile threats that use multispectral technology for rotary-wing, tilt-rotor and small fixed-wing aircraft across the DoD. CIRCM receives an angular bearing hand-off from the MWS, employs a pointing and tracking system which acquires the handed-over threat and tracks the incoming missile during and after motor burnout. CIRCM jams the missile by using modulated laser energy in the missile seeker band, thus degrading the tracking capability of the missile and causing it to miss the aircraft. CIRCM is utilizing Open Systems Architecture which allows flexibility with software and hardware refreshes to keep pace with future threats.

The CIRCM A-Kit includes mounting hardware, wiring harnesses, and other components necessary to install and interface the mission kit on host aircraft. The A-Kit ensures the mission kit is functionally and physically operational with a specific host aircraft type. The CIRCM B-Kit is the mission kit (laser, pointer tracker, and controller) required to achieve near spherical coverage for an aircraft.

JUONS SO-0010 and ATW & CIRCM QRC

Initially, a select number of aircraft in the threat area of responsibility will be outfitted with a Department of the Navy Large Aircraft Infrared Countermeasure (DoN LAIRCM) system. However, this approach came with a Space, Weight and Power - Cooling (SWaP-C) penalty which is being addressed as a follow-on HQDA Directed Requirement with a Quick Reaction Capability (QRC) using Advanced Threat Warner (ATW) and CIRCM. The intent of the ATW & CIRCM QRC program is to reduce the SWaP-C associated with the Phase 2a solution.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	-	-	-	30	30	24	48	48	48
Total Obligation Authority	-	108.721	6.337	43.440	49.777	62.460	106.500	120.851	148.498

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics	P-1 Line Item Number / Title: AZ3537 / CIRCM
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ID Code (A=Service Ready, B=Not Service Ready):	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Total:	Quantity	-	-	-	30	30	24	48	48	48
Secondary Distribution	Total Obligation Authority	-	108.721	6.337	43.440	49.777	62.460	106.500	120.851	148.498

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 10: Ground Support Avionics
P-1 Line Item Number / Title: AZ3537 / CIRCM

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AZ3537 / CIRCM	P-5a, P-21			- / -	- / -	- / 108.721	- / 6.337	30 / 43.440	30 / 49.777
P-40	Total Gross/Weapon System Cost				- / -	- / -	- / 108.721	- / 6.337	30 / 43.440	30 / 49.777

*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:

Fiscal Year 2018 Base Procurement dollars in the amount of \$6.337 million will fund training in preparation for production.

Fiscal Year 2018 OCO Procurement dollars in the amount of \$43.440 million fund the HQDA Directed Requirement in support of Space, Weight, Power and Cooling (SWaP-C) reduction of the Joint Urgent Operational Need Statement (JUONS) SO-0010 Phase 2a solution. Specifically, this funding is required to procure B-Kits for Army and Special Operations Forces.

In accordance with Section 1815 of the FY 2008 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.
 All COMPO 1 Active

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	-	-	-	30	30
Gross/Weapon System Cost (\$ in Millions)	-	-	108.721	6.337	43.440	49.777
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	-	-	108.721	6.337	43.440	49.777
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	-	-	108.721	6.337	43.440	49.777

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	1,448.000	1,659.233

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
B-Kit Manufacturing ^(†)	-	-	-	-	-	-	1,215.961	76	92.413	-	-	-	-	-	-	-	-	-
Other Recurring Production	-	-	-	-	-	-	-	-	-	-	-	0.910	-	-	-	-	-	0.910
Systems Engineering/ Program Management (SEPM)	-	-	-	-	-	-	-	-	8.154	-	-	-	-	-	-	-	-	-
Training	-	-	-	-	-	-	-	-	2.718	-	-	-	-	-	-	-	-	-
Fielding	-	-	-	-	-	-	-	-	5.436	-	-	-	-	-	-	-	-	-
ATW & CIRCM QRC B-Kit Manufacturing ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	1,200.000	30	36.000	1,200.000	30	36.000
ATW & CIRCM QRC SEPM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.440	-	-	7.440
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	108.721	-	-	0.910	-	-	43.440	-	-	44.350
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	108.721	-	-	0.910	-	-	43.440	-	-	44.350
Support - Data Cost																		
Technical Publications	-	-	-	-	-	-	-	-	-	-	-	0.080	-	-	-	-	-	0.080
<i>Subtotal: Support - Data Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.080	-	-	-	-	-	0.080
Support - Engineering Change Proposals Cost																		
Engineering Change Proposals	-	-	-	-	-	-	-	-	-	-	-	1.390	-	-	-	-	-	1.390

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
<i>Subtotal: Support - Engineering Change Proposals Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.390	-	-	-	-	-	1.390
Support - Fielding Cost																		
Fielding	-	-	-	-	-	-	-	-	-	-	-	2.077	-	-	-	-	-	2.077
<i>Subtotal: Support - Fielding Cost</i>	-	-	-	-	-	-	-	-	-	-	-	2.077	-	-	-	-	-	2.077
Support - Peculiar Support Equipment Cost																		
Test and Measurement Equipment	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
<i>Subtotal: Support - Peculiar Support Equipment Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
Support - System Engineering Cost																		
System Engineering	-	-	-	-	-	-	-	-	-	-	-	0.460	-	-	-	-	-	0.460
<i>Subtotal: Support - System Engineering Cost</i>	-	-	-	-	-	-	-	-	-	-	-	0.460	-	-	-	-	-	0.460
Support - Training Cost																		
Services	-	-	-	-	-	-	-	-	-	-	-	1.370	-	-	-	-	-	1.370
<i>Subtotal: Support - Training Cost</i>	-	-	-	-	-	-	-	-	-	-	-	1.370	-	-	-	-	-	1.370
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	108.721	-	-	6.337	1,448.000	30	43.440	1,659.233	30	49.777

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	30	30
	Total Obligation Authority	-	108.721	6.337	43.440	49.777
Total:	Quantity	-	-	-	30	30
Secondary Distribution	Total Obligation Authority	-	108.721	6.337	43.440	49.777

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM
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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
B-Kit Manufacturing		2017	Northrop Grumman Systems Corp / Rolling Meadows	C / FPIF	HQ ACC, Redstone Arsenal, AL	Jan 2017	Nov 2017	76	1,215.961			
ATW & CIRCM QRC B-Kit Manufacturing ^(†)	✓	2018	Northrop Grumman Systems Corp / Rolling Meadows	C / FPIF	HQ ACC, Redstone Arsenal, AL	Jan 2018	Nov 2018	30	1,200.000			

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018																										
							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														
ATW & CIRCM QRC B-Kit Manufacturing																																													
✓	1	2018	ARMY	30	0	30																							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
							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: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM
----------------------------------------------------------------------------------	--------------------------------------------------------	-------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							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
ATW & CIRCM QRC B-Kit Manufacturing																															
✓	1	2018	ARMY	30	0	30	-	5	5	5	5	5	5																0		
							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: FY 2018 Army	Date: May 2017
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Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 10	P-1 Line Item Number / Title: AZ3537 / CIRCM	Item Number / Title [DODIC]: AZ3537 / CIRCM
----------------------------------------------------------------------------------	--------------------------------------------------------	-------------------------------------------------------

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Northrop Grumman Systems Corp - Rolling Meadows	5	15	25	0	10	0	10	0	0	0	0

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 30: Other Support

P-1 Line Item Number / Title:
AZ3000 / Avionics Support Equipment

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	820	864	718	799	-	799	135	135	130	132	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	519.015	6.937	7.007	7.038	-	7.038	1.964	1.968	1.985	2.038	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	519.015	6.937	7.007	7.038	-	7.038	1.964	1.968	1.985	2.038	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	519.015	6.937	7.007	7.038	-	7.038	1.964	1.968	1.985	2.038	Continuing	Continuing

(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>)	632.945	8.029	9.759	8.809	-	8.809	14.548	14.578	15.269	15.439	Continuing	Continuing

Description:

The AN/AVS-6, Aviator's Night Vision Imaging System (ANVIS), supports the Army's objectives by permitting superior tactical mobility of rotary wing aircraft during darkness and low light conditions. The AN/AVS-6 also supports Fixed Wing Lift permitting loading/unloading and flight during darkness and low light conditions. The AN/AVS-6 is a binocular, helmet-mounted system for Aviation crew members. The AN/AVS-6(V)3 is a night vision goggle that significantly expands the input dynamic range to support operations in conditions that vary from below starlight illumination levels through strong urban lighting situations. The increased capability of the AN/AVS-6(V)3 yields enhanced mission performance and improved safety of flight, compared to what is now possible using previous AN/AVS-6 systems. The AN/AVS-6(V)3 enhances the survivability, lethality, and tactical mobility for aviators.

The Army Acquisition Objective (AAO) is 16,686.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	864	718	799	-	799	135	135	130	132
	Total Obligation Authority	6.937	7.007	7.038	-	7.038	1.964	1.968	1.985	2.038
Total: Secondary Distribution	Quantity	864	718	799	-	799	135	135	130	132
	Total Obligation Authority	6.937	7.007	7.038	-	7.038	1.964	1.968	1.985	2.038

Justification:

FY 2018 Base procurement dollars in the amount of \$7.038 million supports the procurement of 799 AN/AVS-6(V)3 systems for fielding to Active Units.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date: May 2017**

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 30: Other Support

P-1 Line Item Number / Title:
AZ3100 / Common Ground Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603801A, 0605830A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,125.722	58.067	48.234	47.404	-	47.404	37.529	37.154	34.795	35.725	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,125.722	58.067	48.234	47.404	-	47.404	37.529	37.154	34.795	35.725	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,125.722	58.067	48.234	47.404	-	47.404	37.529	37.154	34.795	35.725	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Aviation Ground Support Equipment (AGSE) acquires, fields, and modernizes aviation equipment within cost, schedule, and performance parameters, allowing Army Aviation Soldiers to carry out peacetime and wartime missions. AGSE provides life cycle systems management for Aviation Ground Power Unit (AGPU), Aviation Light Utility Mobile Maintenance Cart (ALUMMC), Aviation Unit Maintenance (AVUM) Shop Sets (A92), Modernized Maintenance Stands (MMS), Common Aviation Tool System (CATS), Modernized Flexible Engine Diagnostic System (MFEDS), Self-propelled Crane Aircraft Maintenance and Positioning Increment II (SCAMP II) Type 2 (Expeditionary Variant), Unit Maintenance Aerial Recovery Kit (UMARK), and Non-Destructive Test Equipment (NDTE). AGSE is critical to achieving operational readiness requirements of Army Aviation Units.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	27.791	26.620	20.481	-	20.481	16.445	16.198	15.738	25.725
ANG	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	27.065	20.067	25.023	-	25.023	19.572	19.458	17.801	5.000
AR	-	-	-	-	-	-	-	-	-
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	3.211	1.547	1.900	-	1.900	1.512	1.498	1.256	5.000
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-
Total Obligation Authority	58.067	48.234	47.404	-	47.404	37.529	37.154	34.795	35.725

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AZ3100 / Common Ground Equipment

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603801A, 0605830A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AZ3520 / AVIATION GROUND SUPPORT EQUIPMENT				- / 1,125.722	- / 58.067	- / 48.234	- / 47.404	- / -	- / 47.404
P-40	Total Gross/Weapon System Cost				- / 1,125.722	- / 58.067	- / 48.234	- / 47.404	- / -	- / 47.404

*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:
 FY 2018 Base procurement dollars in the amount of \$14.128 million procures and fields the Self-propelled Crane Aircraft Maintenance and Positioning Increment II, Type 2 (Expeditionary Variant).
 FY 2018 Base procurement dollars in the amount of \$14.941 million procures and installs MWO kits for the Modernized Flexible Engine Diagnostic Systems.
 FY 2018 Base procurement dollars in the amount of \$4.766 million procures and installs MWO kits for the Aviation Unit Maintenance Shop Sets (A92).
 FY 2018 Base procurement dollars in the amount of \$3.348 million procures and fields the Modernized Maintenance Stands.
 FY 2018 Base procurement dollars in the amount of \$6.908 million procures and installs MWO kits for the Common Aviation Tool System.
 FY 2018 Base procurement dollars in the amount of \$0.975 million procures and fields the Aviation Light Utility Mobile Maintenance Cart.
 FY 2018 Base procurement dollars in the amount of \$0.031 million installs MWO kits for the Unit Maintenance Aerial Recovery Kit.

In accordance with Section 1815 of the FY 2008 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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AZ3100 / Common Ground Equipment	Item Number / Title [DODIC]: AZ3520 / AVIATION GROUND SUPPORT EQUIPMENT

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,125.722	58.067	48.234	47.404	-	47.404
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,125.722	58.067	48.234	47.404	-	47.404
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,125.722	58.067	48.234	47.404	-	47.404

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Aviation Ground Power Unit	124.335	8,236	1,024.019	-	-	2.213	-	-	-	-	-	-	-	-	-	-	-	-
Avn Light Utility Mobile Maint	46.710	300	14.013	35.145	408	14.339	31.627	351	11.101	40.625	24	0.975	-	-	-	40.625	24	0.975
Modernized Maintenance Stands	-	-	5.827	-	-	-	31.369	160	5.019	34.515	97	3.348	-	-	-	34.515	97	3.348
Common Aviation Tool System	1.838	18,757	34.482	-	-	-	-	-	-	-	-	6.908	-	-	-	-	-	6.908
Mod Flexible Engine Diagnostics Sys	23,692.000	2	47.384	-	-	5.619	3,777.500	2	7.555	-	-	14.941	-	-	-	-	-	14.941
SCAMP II Expeditionary Type 2	-	-	-	-	-	-	495.167	12	5.942	147.167	96	14.128	-	-	-	147.167	96	14.128
Unit Maint Aerial Recovery Kit	-	-	-	14.081	34.690	113	3.920	-	-	0.031	-	-	-	-	-	-	-	0.031
Non-Destructive Test Equipment	-	-	-	-	-	17.629	164.049	41	6.726	-	-	-	-	-	-	-	-	-
Avn Unit Maint. (AVUM)/(A92)	-	-	-	-	-	1.879	1,560.250	4	6.241	-	-	4.766	-	-	-	-	-	4.766
<i>Subtotal: Recurring Cost</i>	<i>-</i>	<i>-</i>	<i>1,125.722</i>	<i>-</i>	<i>-</i>	<i>55.760</i>	<i>-</i>	<i>-</i>	<i>46.504</i>	<i>-</i>	<i>-</i>	<i>45.097</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>45.097</i>
<i>Subtotal: Flyaway Cost</i>	<i>-</i>	<i>-</i>	<i>1,125.722</i>	<i>-</i>	<i>-</i>	<i>55.760</i>	<i>-</i>	<i>-</i>	<i>46.504</i>	<i>-</i>	<i>-</i>	<i>45.097</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>45.097</i>
Support - Program Management Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AZ3100 / Common Ground Equipment	Item Number / Title [DODIC]: AZ3520 / AVIATION GROUND SUPPORT EQUIPMENT
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Government Management	-	-	-	-	-	2.307	-	-	1.730	-	-	2.307	-	-	-	-	-	2.307
<i>Subtotal: Support - Program Management Cost</i>	-	-	-	-	-	2.307	-	-	1.730	-	-	2.307	-	-	-	-	-	2.307
Gross/Weapon System Cost	-	-	1,125.722	-	-	58.067	-	-	48.234	-	-	47.404	-	-	-	-	-	47.404

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	27.791	26.620	20.481	-	20.481
ANG	Quantity	-	-	-	-	-
	Total Obligation Authority	27.065	20.067	25.023	-	25.023
AR	Quantity	-	-	-	-	-
	Total Obligation Authority	3.211	1.547	1.900	-	1.900
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	58.067	48.234	47.404	-	47.404

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AZ3110 / Aircrew Integrated Systems

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603827A, 0604601A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	167.707	44.085	30.297	47.066	-	47.066	30.896	28.900	26.900	36.004	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	167.707	44.085	30.297	47.066	-	47.066	30.896	28.900	26.900	36.004	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	167.707	44.085	30.297	47.066	-	47.066	30.896	28.900	26.900	36.004	Continuing	Continuing

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Aircrew Integrated Systems funds Air Warrior and Air Soldier System Aviation Life Support Equipment efforts. The Air Warrior (AW) is the legacy Aviation Life Support Equipment system that provides Army rotary wing aircrews with protective mission and survival equipment. The AW consists of Clothing and Individual Equipment and mission electronics integrated with the aircraft that enable the crew member to successfully perform the mission as well as protect, sustain, and assist in the safe return to friendly forces in the event of a downed aircraft scenario. The Air Soldier System (Air SS) is the phased replacement of the AW that addresses AW capability gaps, including inadequate cockpit compatibility due to the bulk of aircrew-worn protective equipment; lack of modern Situational Awareness tools available to the aviator, especially in a Degraded Visual Environment; and soldier load. Air SS integrates with the aircraft platform and consists of modernized mission electronics, flight helmets, helmet-mounted displays and symbology, and provides improved protective clothing and individual survival equipment. The Air SS reduces soldier load by reducing the bulk and weight of the protective equipment worn by the crewmember, and enhances aircrew Situational Awareness and safety with a Computer Display System and Helmet Display and Tracking System that reduce cockpit workload and provide enhanced flight symbology for UH-60 and CH-47 crewmembers.

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	44.085	30.297	47.066	-	47.066	30.896	28.900	26.900	36.004
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	44.085	30.297	47.066	-	47.066	30.896	28.900	26.900	36.004

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AZ3110 / Aircrew Integrated Systems

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603827A, 0604601A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AZ3110 / Aircrew Integrated Systems	P-5a, P-21			- / 167.707	- / 44.085	- / 30.297	- / 47.066	- / -	- / 47.066
P-40	Total Gross/Weapon System Cost				- / 167.707	- / 44.085	- / 30.297	- / 47.066	- / -	- / 47.066

*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:

FY2018 Base procurement dollars in the amount of \$47.066 million supports Engineering Changes to Air Warrior components that support Air Soldier System requirements, and production and fielding of Air SS capability consisting of improved flight helmets; a Mission Display Module for UH-60L aviators; improved lightweight body armor; improved environmental protective clothing and personal survival equipment; and a day/night helmet-mounted display with head tracking and Three Dimensional Conformal Symbolology for UH-60 and CH-47 aviators. These funds also procure Air Soldier platform-mounted components necessary for airframe interface with the Air Soldier; and installation of airframe integration kits.

Funding procures equipment and materiel to support a balanced investment strategy in support of the Army Acquisition Objective.

In accordance with section 1815 of the FY 2008 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: FY 2018 Army						Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30			P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems			Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems		
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:		
Resource Summary			Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)			-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)			167.707	44.085	30.297	47.066	-	47.066
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			167.707	44.085	30.297	47.066	-	47.066
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			167.707	44.085	30.297	47.066	-	47.066
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Air Warrior ECPs Supporting Air SS Rqmts	-	-	11.752	-	-	1.329	-	-	1.329	-	-	1.343	-	-	-	-	-	1.343
Air SS Soldier Kits	4.445	2,125	9.446	11.207	1,347	15.096	1.920	766	1.471	1.934	2,568	4.967	-	-	-	1.934	2,568	4.967
Air SS Airframe Kits ^(†)	65.014	353	22.950	62.728	217	13.612	117.277	137	16.067	218.000	86	18.748	-	-	-	218.000	86	18.748
Airframe Kit Install	-	-	6.515	-	-	1.699	-	-	0.946	-	-	3.845	-	-	-	-	-	3.845
Manual	-	-	14.082	-	-	-	-	-	-	-	-	0.379	-	-	-	-	-	0.379
New Equipment Training	-	-	2.858	-	-	0.323	-	-	0.357	-	-	1.873	-	-	-	-	-	1.873
Initial Spares	-	-	8.007	-	-	1.431	-	-	0.804	-	-	1.880	-	-	-	-	-	1.880
Support Equipment	-	-	8.522	-	-	0.143	-	-	0.149	-	-	0.738	-	-	-	-	-	0.738
Systems Test and Evaluation	-	-	14.705	-	-	0.302	-	-	0.298	-	-	0.433	-	-	-	-	-	0.433
Nonrecurring Engineering (NRE)	-	-	30.488	-	-	0.485	-	-	0.362	-	-	0.556	-	-	-	-	-	0.556
Engineering Changes	-	-	6.836	-	-	2.372	-	-	1.633	-	-	3.176	-	-	-	-	-	3.176
Systems Integration Engineering	-	-	6.303	-	-	0.412	-	-	0.383	-	-	0.528	-	-	-	-	-	0.528
Program Management & Matrix Support	-	-	21.056	-	-	5.961	-	-	5.601	-	-	5.987	-	-	-	-	-	5.987
Total Package Fielding	-	-	2.155	-	-	0.096	-	-	0.109	-	-	0.723	-	-	-	-	-	0.723

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30						P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems						Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Contract Logistics Support	-	-	2.032	-	-	0.824	-	-	0.788	-	-	1.890	-	-	-	-	-	1.890
<i>Subtotal: Recurring Cost</i>	-	-	<i>167.707</i>	-	-	<i>44.085</i>	-	-	<i>30.297</i>	-	-	<i>47.066</i>	-	-	<i>-</i>	-	-	<i>47.066</i>
<i>Subtotal: Flyaway Cost</i>	-	-	<i>167.707</i>	-	-	<i>44.085</i>	-	-	<i>30.297</i>	-	-	<i>47.066</i>	-	-	<i>-</i>	-	-	<i>47.066</i>
Gross/Weapon System Cost	-	-	167.707	-	-	44.085	-	-	30.297	-	-	47.066	-	-	-	-	-	47.066

Secondary Distribution		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Army	Quantity	-	-	-	-	-
	Total Obligation Authority	44.085	30.297	47.066	-	47.066
Total: Secondary Distribution	Quantity	-	-	-	-	-
	Total Obligation Authority	44.085	30.297	47.066	-	47.066

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

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Exhibit P-5a, Procurement History and Planning: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems	Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems
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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
Air SS Airframe Kits ^(†)		2015	Various / Various	C / FFP	Redstone Arsenal, AL	Aug 2015	Mar 2016	168	62.667	Y		
Air SS Airframe Kits ^(†)		2016	Various / Various	C / FFP	Redstone Arsenal, AL	Mar 2016	Sep 2016	217	62.728	Y		
Air SS Airframe Kits ^(†)		2017	Various / Various	C / FFP	Redstone Arsenal, AL	Jan 2017	Jul 2017	137	117.277	Y		
Air SS Airframe Kits ^(†)		2018	Various / Various	C / FFP	Redstone Arsenal, AL	Jan 2018	Jul 2018	86	218.000	N		

^(†) indicates the presence of a P-21

Remarks:

Unit Cost changes across the years reflect the different mix of subsystem components procured each year.
The FY17 unit costs were adjusted to realign the cost of the Head Tracker device from the Air SS Soldier Kit to the Air SS Airframe Kit.

Please note: the FY17 unit cost adjustments also apply to the unit cost reflected on the P-5.

Unit Cost in FY18 is greater than FY17 Unit Cost for Air Soldier System Airframe Kits due to the cost of additional kit components (Embedded GPS Inertial Navigation System and the Computer Display System) unique to the UH-60L aircraft platform.

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Exhibit P-21, Production Schedule: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems	Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------	----------------------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2017													Fiscal Year 2018												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018												
							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	
Air SS Airframe Kits																																
Prior Years Deliveries: 185																																
	1	2015	ARMY	168	112	56	18	18	20																				0			
	1	2016	ARMY	217	20	197	20	20	20	20	20	20	20	20	17														0			
	1	2017	ARMY	137	0	137				A -	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	5	0				
	1	2018	ARMY	86	0	86														A -	-	-	-	-	-	7	7	8	64			
							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: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems	Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems
----------------------------------------------------------------------------------	-----------------------------------------------------------------------------	----------------------------------------------------------------------------

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019													Fiscal Year 2020													BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							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			
Air SS Airframe Kits																																	
Prior Years Deliveries: 185																																	
	1	2015	ARMY	168	168	0																							0				
	1	2016	ARMY	217	217	0																							0				
	1	2017	ARMY	137	137	0																							0				
	1	2018	ARMY	86	22	64	8	8	8	8	8	8	8	8															0				
							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: FY 2018 Army								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30					P-1 Line Item Number / Title: AZ3110 / Aircrew Integrated Systems				Item Number / Title [DODIC]: AZ3110 / Aircrew Integrated Systems			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	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	Various - Various	8	100	500	6	19	6	25	5	3	6	9

Remarks:
Monthly Quantity Production Rates are shown.

"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).

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AA0050 / Air Traffic Control

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604633A

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	10	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,385.212	94.544	53.405	83.790	-	83.790	69.589	47.469	54.922	51.632	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,385.212	94.544	53.405	83.790	-	83.790	69.589	47.469	54.922	51.632	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,385.212	94.544	53.405	83.790	-	83.790	69.589	47.469	54.922	51.632	Continuing	Continuing

(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>)	138,521.200	-	-	-	-	-	-	-	-	-	Continuing	Continuing

Description:

Funds described herein support the acquisition of modernized tactical and fixed base Air Traffic Control (ATC) systems that will enable safety of aircraft operations. ATC systems are required to achieve or maintain compliance with civil, military, domestic and international air traffic control mandates and combat identification requirements. Efforts funded include the Tactical Airspace Integration System (TAIS), Air Traffic Navigation Integration and Coordination System (ATNAVICs), the Mobile Tower System (MOTS), the Tactical Terminal Control System (TTCS), the ATC Common Simulator (ACS), and Fixed Base systems, such as the DoD Advanced Automation System (DAAS), the Digital Airport Surveillance Radar (DASR), and other navigational control aids to include the Army Airfield Automation System (AAAS), National Air Space (NAS) voice switch, Doppler VHF Omnidirectional Range (DVOR) system, NAS Voice Recorder (NVR) and Instrument Landing System (ILS). The US Air Force (USAF) and the US Army have agreed to evenly share the cost of funding Ft. Sill's Common Terminal Digitizer for the Airport Surveillance Radar-8 (ASR-8) and the DAAS Display System Upgrades. PM ATC will fund the Army's share of the requirement.

TAIS, the Army's system of record for Airspace Control (AC) and enroute Air Traffic Services (ATS) within the Army Mission Command Information System (MCIS), requires the development and testing of web-based services for AC, and integration of these new web-based services into the TAIS common MCIS hardware, while meeting the Common Operating Environment (COE) standards. Additional capabilities will be provided through advanced surveillance and mission planning interfaces. TAIS efforts also include developing and testing improvements to the air picture including the addition of Blue Force Tracker correlation and radar fusion capability. TAIS develops software and required hardware for AC web services to operate effectively in a dynamic net-centric interconnected environment. ATNAVICs is an ASR and Precision Approach Radar system that provides ATS at Army terminal airfields and landing sites at Division, Corps, and Echelons Above Corps to include services for Joint and Allied aircraft. ATNAVICs will integrate Mode S capabilities required to control aircraft both Outside of the Continental United States and within the Continental United States. ATNAVICs will network its radar picture and interrogator data (Mode S) to aviation and joint network nodes through TAIS. ATNAVICs will undergo an effort to increase the range of the primary radar to 60 nautical miles. The TTCS is a mobile ATC communications system that provides initial ATS at remote landing sites and drop zones. It enables secure ground-to-air and ground-to-ground communications between Army aircraft, other services, Allied aircraft, and ground stations. TTCS also provides aircraft separation and ground control capabilities, a meteorological measuring system for basic weather information, Blue Force Tracker which provides near real time situational awareness and precision location capability. Future improvements include incorporating advanced surveillance as risk mitigation by improving airspace situational awareness and providing an improved soldier interface that is common with other ATC systems. MOTS provides ATC and aircraft separation for both air and ground operations at tactical or remote landing sites. It replaces the 1970's era 7A mobile tower system. MOTS capabilities include weather information, secure and anti-jam communications across all required frequency bands and ranges and precision location. ATNAVICs, TAIS, TTCS, and MOTS serve as effective air traffic control tools for aviation safety during night, inclement weather and combat operations. Fixed Base ATC requirements (DAAS, DASR, AAAS, DVOR, NVR, NAS Voice Switch) will be met through a vast array of new technology solutions and pre-planned product improvement (P3I) of these systems resulting in highly reliable and safe ATC systems in accordance with the Joint DoD/Federal Aviation Administration (FAA) program to modernize the NAS and the FAA Next Gen program.

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AA0050 / Air Traffic Control

ID Code (A=Service Ready, B=Not Service Ready): **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604633A

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	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	AA0050 / Air Traffic Control				10 / 1,385.212	- / 94.544	- / 53.405	- / 83.790	- / -	- / 83.790
P-40	Total Gross/Weapon System Cost				10 / 1,385.212	- / 94.544	- / 53.405	- / 83.790	- / -	- / 83.790

*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:
 FY 2018 Base procurement dollars in the amount of \$83.790 million provides for acquisition activities that support both tactical and fixed base ATC systems including P3I efforts. Funding for tactical ATC systems provides for Modification Work Orders (MWOs) to TAIS, ATNAVICS, TTCS and MOTS. ATNAVICS upgrades will address interoperability and networking capabilities with the integration of the Tactical Operations Center Intercommunications System (TOCNET) and Mode S capability. ATNAVICS will also improve radio communications with the installation of new radios, will upgrade Advanced Signal Data Processors, and will provide improved operational flexibility by incorporating a remote workstation capability. TAIS funding provides for the continuation of ongoing COE efforts, support of Joint Interoperability Testing, support of Network Integration Event testing, incorporation of emerging FAA requirements, real time retrieval of Aviation Mission Planning System mission data to mitigate risk by improving airspace situational awareness, and providing an improved soldier interface that is common with other ATC systems. MOTS will procure logistics products in support of future P3I efforts. TTCS funding provides for the production and fielding of the TOCNET Commonality MWO and the procurement of logistics products. Future MWOs will incorporate new radios and a passive receiver into the TTCS as part of the ATC Network functionality. These modifications to tactical ATC systems ensure Army ATC and Army airspace command and control systems are capable of supporting the path ahead to the Future Force. Fixed Base funded efforts include P3I for DAAS and DASR which includes wind turbine mitigation, upgrade to the NextGen Voice Switch (NVS), NAS Voice Recorder (NVR), and AAAS hardware and software upgrades to accommodate changes to the Digital Automatic Terminal Information Service and the USAF Weather System Joint Environmental Toolkit. Fixed Base equipment quantities and configurations are tailored to meet specific site requirements, resulting in varying unit costs. Funding ensures compliance and interoperability between the Army, Joint and FAA systems operating in the National Airspace System.

In accordance with section 1815 of the FY 2008 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: FY 2018 Army		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30	P-1 Line Item Number / Title: AA0050 / Air Traffic Control	Item Number / Title [DODIC]: AA0050 / Air Traffic Control

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
---------------------------------------------------------	------------------------

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Procurement Quantity (Units in Each)	10	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,385.212	94.544	53.405	83.790	-	83.790
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,385.212	94.544	53.405	83.790	-	83.790
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,385.212	94.544	53.405	83.790	-	83.790

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	138,521.200	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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																		
Fixed Base Precision Approach Radar	-	-	91.260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DoD Advanced Automation System (DAAS)	-	-	105.216	-	-	7.302	-	-	0.359	-	-	4.511	-	-	-	-	-	4.511
Digital Airport Surveillance Radar(DASR)	-	-	84.321	-	-	0.661	-	-	0.835	-	-	0.209	-	-	-	-	-	0.209
Tactical Airspace Integration Sys (TAIS)	-	-	374.163	-	-	17.629	-	-	14.292	-	-	20.005	-	-	-	-	-	20.005
Air Traffic Navigation and Integration	-	-	395.829	-	-	16.636	583.762	21	12.259	-	-	24.583	-	-	-	-	-	24.583
Navigational Control (AAAS, DVOR, NVS, NVR)	-	-	46.507	-	-	6.411	-	-	12.616	-	-	19.093	-	-	-	-	-	19.093
Tactical Terminal Control System (TTCS)	-	-	57.781	-	-	19.756	314.083	12	3.769	-	-	7.442	-	-	-	-	-	7.442
Mobile Tower System (MOTS)	29,768.667	6	178.612	-	-	26.149	784.375	8	6.275	-	-	7.947	-	-	-	-	-	7.947
ATC Common Simulator (ACS)	-	-	51.523	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	1,385.212	-	-	94.544	-	-	50.405	-	-	83.790	-	-	-	-	-	83.790
Non Recurring Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Army												Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 2031A / 04 / 30						P-1 Line Item Number / Title: AA0050 / Air Traffic Control						Item Number / Title [DODIC]: AA0050 / Air Traffic Control					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
Dod Advanced Automation System (DAAS) Ft. Sill	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	-	-	-	-
Common Terminal Digitizer (CTD) Ft. Sill ASR-8	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	-	-	-	3.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	1,385.212	-	-	94.544	-	-	53.405	-	-	83.790	-	-	-	-	-	83.790
Gross/Weapon System Cost	138,521.200	10	1,385.212	-	-	94.544	-	-	53.405	-	-	83.790	-	-	-	-	-	83.790

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
 2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA
 30: Other Support

P-1 Line Item Number / Title:
 AZ3300 / Industrial Facilities

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	184.902	1.207	1.829	1.397	-	1.397	1.430	1.456	1.498	1.538	-	195.257
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	184.902	1.207	1.829	1.397	-	1.397	1.430	1.456	1.498	1.538	-	195.257
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	184.902	1.207	1.829	1.397	-	1.397	1.430	1.456	1.498	1.538	-	195.257

(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>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program provides funding to the Army Test and Evaluation Command (ATEC) to establish, modernize, expand or replace test facilities used in production testing of Aircraft and Aircraft components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the Redstone Test Center (RTC), Huntsville, AL and Yuma Test Center (YTC), Yuma Proving Ground, AZ.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.207	1.829	1.397	-	1.397	1.430	1.456	1.498	1.538
Total:									
Secondary Distribution									
Quantity	-	-	-	-	-	-	-	-	-
Total Obligation Authority	1.207	1.829	1.397	-	1.397	1.430	1.456	1.498	1.538

Justification:

FY 2018 Base procurement dollars in the amount of \$1.397 million support the following: At RTC, procures instrumentation that will allow in-flight data collection of Aircraft Survivability Equipment (ASE) system performance and procure test support equipment that will stimulate the ASE systems. At YTC, procures replacement aircraft instrumentation for the time stamping, on board recording and telemetering of data from standard data buses and sensors; and on board recorders and telemetry equipment that can meet the environment and data speeds needed for production base aviation programs. Funding also replaces 15 year old Electro-Optical/Infrared (EO/IR) targets used for aircraft sensor resolution testing.

The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.
 All COMPO 1 Active

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Exhibit P-40, Budget Line Item Justification: FY 2018 Army **Date:** May 2017

Appropriation / Budget Activity / Budget Sub Activity:
2031A: Aircraft Procurement, Army / BA 04: Support Equipment and Facilities / BSA 30: Other Support

P-1 Line Item Number / Title:
A50100 / Launcher, 2.75 Rocket

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	225	214	205	124	-	124	122	141	149	156	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	88.253	3.012	3.055	1.911	-	1.911	1.918	2.221	2.369	2.514	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	88.253	3.012	3.055	1.911	-	1.911	1.918	2.221	2.369	2.514	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	88.253	3.012	3.055	1.911	-	1.911	1.918	2.221	2.369	2.514	Continuing	Continuing

(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>)	392.236	14.075	14.902	15.411	-	15.411	15.721	15.752	15.899	16.115	Continuing	Continuing

Description:

The M261 19-tube analog launcher and the M260 7-tube analog launcher are used to fire 2.75 Inch Hydra-70 Rockets from the following platforms: AH-64 Apache, H-60 Blackhawk, and Special Operations aircraft. The analog launchers are non-repairable, yet durable enough to withstand at least 16 rocket firings per tube before being discarded. The empty weight of the M260 analog launcher is approximately 35 pounds and the empty weight of the M261 analog launcher is approximately 82 pounds. The analog launcher permits fuze-timing selections from the cockpit and will launch rockets using either the MK40 or the MK66 motors. This launcher funding supports the launcher system to include resolution of obsolescence, safety, reliability, weapon integration activities, test sets, engineering changes and production issues.

Secondary Distribution	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022
Army									
Quantity	214	205	124	-	124	122	141	149	156
Total Obligation Authority	3.012	3.055	1.911	-	1.911	1.918	2.221	2.369	2.514
Total: Secondary Distribution									
Quantity	214	205	124	-	124	122	141	149	156
Total Obligation Authority	3.012	3.055	1.911	-	1.911	1.918	2.221	2.369	2.514

Justification:

FY2018 base procurement dollars in the amount of \$1.911 million supports the procurement of 124 M261 19-tube analog launcher for the AH-64 Apache, H-60 Blackhawk, and Special Operation aircraft. Procurement replaces disposable launchers as a result of annual rocket firings for pre-deployment training and replenishes the limited issuable stockage that has been depleted below levels acceptable to support training of Active Army, Special Operations Forces and Reserve Components usage.

The demand for the M260 analog launchers has decreased due to the Aviation Restructure Initiative.

"In accordance with Section 1815 of the FY 2008 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."