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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Army	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development					<b>R-1 Program Element (Number/Name)</b> PE 0305219A / MQ-1 Gray Eagle UAV							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	13.074	46.472	-	-	-	-	-	-	-	-	59.546
MQ1: MQ-1 Gray Eagle - Army UAV (MIP)	-	13.074	46.472	-	-	-	-	-	-	-	-	59.546

**A. Mission Description and Budget Item Justification**

Gray Eagle provides Reconnaissance, Surveillance, Target Acquisition (RSTA), Command and Control, Communications Relay, Signals Intelligence (SIGINT), Battle Damage Assessment, and Manned-Unmanned Teaming capability. Gray Eagle is a dedicated, assured, multi-mission Unmanned Aircraft System (UAS) fielded to all Army Divisions, Army Intelligence and Security Command and Army Special Operations Command in support of the commander's warfighting priorities.

The RDT&E budget is driven primarily by the requirement for a Follow-On Operational Test & Evaluation (FOT&E). This test effort will evaluate the changes in the concept of operation as well as changes to materiel, specifically the addition of the Universal Ground Control Station (UGCS), which replaces the currently fielded One System Ground Control Station (OSGCS). It will be conducted during 3QFY15. The scope of FOT&E is similar to that of the Initial Operational Test & Evaluation (IOT&E) performed in FY12 in that both tests will use a Gray Eagle Company staged out at Edwards Air Force Base (EAFB) to support a rotational training unit "in the box" at National Training Center (NTC). FOT&E scope is expanded beyond the IOT&E in that a platoon will break away from the parent Company and move to Goldstone Army Airfield on Fort Irwin, where it will also support the unit training at the NTC.

The Ground Based Sense and Avoid (GBSAA) system provides an alternative means of complying with Federal Aviation Administration "see and avoid" regulations for Unmanned Aircraft Systems.

Justification: No program funding in FY2016.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Previous President's Budget	10.895	46.472	-	-	-
Current President's Budget	13.074	46.472	-	-	-
Total Adjustments	2.179	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.179	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0305219A / MQ-1 Gray Eagle UAV				Project (Number/Name) MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
MQ1: MQ-1 Gray Eagle - Army UAV (MIP)	-	13.074	46.472	-	-	-	-	-	-	-	-	59.546
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Integration of the Universal Ground Products into the Gray Eagle System requires completion of a Follow-On Operational Test and Evaluation (FOT&E). FY2015 funds increase is required to accommodate the FOT&E move to FY2015.

**A. Mission Description and Budget Item Justification**

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The RDT&E budget is driven primarily by the requirement for a Follow-On Operational Test & Evaluation (FOT&E). This test effort will evaluate the changes in the concept of operation as well as changes to materiel, specifically the addition of the Universal Ground Control Station (UGCS), which replaces the currently fielded One System Ground Control Station (OSGCS). It will be conducted during 3QFY15. The scope of FOT&E is similar to that of the Initial Operational Test & Evaluation (IOT&E) performed in FY12 in that both tests will use a Gray Eagle Company staged out at Edwards Air Force Base (EAFB) to support a rotational training unit "in the box" at National Training Center (NTC). FOT&E scope is expanded beyond the IOT&E in that a platoon will break away from the parent Company and move to Goldstone Army Airfield on Fort Irwin, where it will also support the unit training at the NTC.

The Ground Based Sense and Avoid (GBSAA) system provides an alternative means of complying with Federal Aviation Administration "see and avoid" regulations for Unmanned Aircraft Systems.

Justification: No program funding in FY2016.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
<b>Title:</b> Gray Eagle Software / Hardware Development	2.735	18.965	-	-	-
<b>Description:</b> Gray Eagle Software / Hardware Development					
<b>FY 2014 Accomplishments:</b> Complete development of 4.3.X software.					
<b>FY 2015 Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Army										<b>Date:</b> February 2015	
<b>Appropriation/Budget Activity</b> 2040 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0305219A / MQ-1 Gray Eagle UAV				<b>Project (Number/Name)</b> MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)			
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>											
	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>						
Complete development of 4.3.X software.											
<b>Title:</b> Government Test Support						7.236	21.858	-	-	-	
<b>Description:</b> Government test support including support of developmental test, Electromagnetic Environmental Effects (E3) testing on the UGCS, Joint Interoperability Test Center efforts, Link 16 testing, and FOT&E test planning, site preparation, and complete FOT&E.											
<b>FY 2014 Accomplishments:</b> Continue Government test support including support of developmental test and FOT&E test planning and site preparation.											
<b>FY 2015 Plans:</b> Complete developmental test to include Captive Carry, Transport/Mobility. Conduct and complete FOT&E.											
<b>Title:</b> Ground Base Sense and Avoid (GBSAA)						3.103	5.649	-	-	-	
<b>Description:</b> Ground Base Sense and Avoid (GBSAA)											
<b>FY 2014 Accomplishments:</b> Ground Base Sense and Avoid (GBSAA)											
<b>FY 2015 Plans:</b> Ground Base Sense and Avoid (GBSAA); Development of the GBSAA software, integration, and perform testing.											
<b>Accomplishments/Planned Programs Subtotals</b>						13.074	46.472	-	-	-	
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• MQ-1 UAV / APA (A00005):	500.547	238.081	260.436	16.537	276.973	55.886	10.890	-	-	Continuing	Continuing
MQ-1 UAV / APA (A00005) -Base											
• MQ-1 UAV / APA (A00020)	-	-	-	-	-	-	84.189	108.719	46.566	Continuing	Continuing
GE MODs: MQ-1 UAV /											
APA (A00020) GE MODs											
<b>Remarks</b>											

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0305219A / MQ-1 Gray Eagle UAV	Project (Number/Name) MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)
<b>D. Acquisition Strategy</b> An Extended Range Multi-Purpose (ERMP) Operational Requirement Document (ORD) was approved by the Joint Requirement Oversight Council (JROC) 6 Apr 2005, Milestone B occurred 20 Apr 2005, and the System Development and Demonstration contract was awarded 8 Aug 2005, as a result of a competitive solicitation which included a vendor system capabilities demonstration. A Capabilities Production Document (CPD) was approved 14 Mar 2009. To meet the required capability, evolutionary acquisition has been employed to implement the incremental approach outlined in the CPD. Gray Eagle completed IOT&E and the program now has to complete software development, integration and testing of the universal products (UGCS, UGDT and other universal ground equipment). PM JAMS is developing the R model of the HELLFIRE missile and participating in the integration and test activities for the entire Gray Eagle system. PEO Missile and Space is budgeting for the procurement of missiles for the fielded systems. PEO Intelligence and Electronic Warfare Systems (IEWES) develops, manages, and is responsible for meeting all Gray Eagle costs associated for payloads, payload integration, and payload sustainment.		
<b>E. Performance Metrics</b> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0305219A / MQ-1 Gray Eagle UAV				Project (Number/Name) MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	MIPR	PM UAS : Redstone Arsenal, AL	9.066	-		-		-		-		-	-	9.066	-
Subtotal			9.066	-		-		-		-		-	-	9.066	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Engineering	C/CPIF	General Atomics / ASI : San Diego, CA	162.335	2.735		-		-		-		-	-	165.070	-
Prototype Manufacturing	Various	General Atomics / ASI : San Diego, CA	213.776	-		-		-		-		-	-	213.776	-
Ground Support Equipment	C/CPIF	Various : Various	9.075	-		-		-		-		-	-	9.075	-
Ground Base Sense & Avoid (GBSAA)	SS/CPFF	Various : Various	7.693	3.103	Aug 2014	5.649	Jan 2016	-		-		-	-	16.445	-
Software / Hardware Development	SS/CPIF	General Atomics : San Diego, CA	76.214	-		18.965	Feb 2015	-		-		-	-	95.179	-
Subtotal			469.093	5.838		24.614		-		-		-	-	499.545	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	MIPR	Ft. Huachuca : Ft. Huachuca	24.501	-		-		-		-		-	-	24.501	-
Training and Training Equipment	MIPR	Ft. Huachuca : Ft. Huachuca	43.892	-		-		-		-		-	-	43.892	-
Government Engineering Support	C/FFP	Various : Various	18.859	-		-		-		-		-	-	18.859	-
Subtotal			87.252	-		-		-		-		-	-	87.252	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2016 Army</b>												<b>Date:</b> February 2015			
<b>Appropriation/Budget Activity</b> 2040 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0305219A / MQ-1 Gray Eagle UAV				<b>Project (Number/Name)</b> MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)					
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Test and Evaluation	MIPR	Various Government Agencies : Various Government Agencies	52.674	7.236	Mar 2014	21.858	Feb 2015	-		-		-	-	81.768	-
<b>Subtotal</b>			52.674	7.236		21.858		-		-		-	-	81.768	-
			<b>Prior Years</b>	<b>FY 2014</b>		<b>FY 2015</b>		<b>FY 2016 Base</b>		<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			618.085	13.074		46.472		-		-		-	-	677.631	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2016 Army</b>	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219A / MQ-1 Gray Eagle UAV	<b>Project (Number/Name)</b> MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)
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Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Engineering Software / Hardware Development																												
Developmental Testing and Software Testing																												
(1) Operational Test Readiness Review I																												
(2) Operational Test Readiness Review II																												
(3) Collective Training																												
(4) Pilot Test																												
(5) Operational Test Readiness Review III																												
(6) Follow-on Operational Test and Evaluation																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Army			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305219A / MQ-1 Gray Eagle UAV	<b>Project (Number/Name)</b> MQ1 / MQ-1 Gray Eagle - Army UAV (MIP)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering Software / Hardware Development	1	2013	1	2014
Developmental Testing and Software Testing	1	2014	1	2016
Operational Test Readiness Review I	1	2015	1	2015
Operational Test Readiness Review II	3	2015	3	2015
Collective Training	3	2015	3	2015
Pilot Test	3	2015	3	2015
Operational Test Readiness Review III	3	2015	3	2015
Follow-on Operational Test and Evaluation	3	2015	3	2015