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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305232A: <i>RQ-11 Raven</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	1.547	1.935	4.039	-	4.039	2.917	2.977	3.025	3.077	Continuing	Continuing
RA7: <i>RQ-11 RAVEN (MIP)</i>	1.547	1.935	4.039	-	4.039	2.917	2.977	3.025	3.077	Continuing	Continuing

Note

Change Summary Explanation: Funding - FY 11: Program was transferred from PE 375204 to this stand alone PE.

A. Mission Description and Budget Item Justification

The Small Unmanned Aircraft System (SUAS) provides the battalion and below ground maneuver elements critical situational awareness and enhances force protection. The system provides the small unit commander an organic and responsive tactical Reconnaissance, Surveillance, and Target Acquisition (RSTA) capability through the ability to view real-time Full Motion Video (FMV) and sensor data via the system ground control station. Other compatible receivers, such as the One Station Remote Video Terminal (OSRVT) and appropriately equipped manned platforms may also receive the SUAS products.

A SUAS includes three aircraft that must be launched by hand or by some other means that does not require an improved launch/recovery location. In addition to the aircraft, the system contains ground support equipment, which includes an interoperable hand controller. This equipment is fully transportable in or on rucksack type packs that are organic to the unit.

The SUAS RDT&E budget line includes funding for studies and incremental development/upgrade of current SUAS capabilities that will capitalize on new technology insertions based on identified user requirements. Past improvements include a Digital Data Link capability, introduced in 2010, which provided data link security, increased the number of communications channels allowing more aircraft to operate in close proximity, extended range through data link relay capability, and integrated advanced digital payloads. Future enhancements will follow the natural progression of technology and exploitation of improved payloads to meet warfighter needs. FY 2013 and future improvements will be in the areas of: continued communications link encryption; gimbaled payloads; software blocking integration; common hand controller development and integration; ADS-B integration; and noise reduction.

Justification:

FY 2013 engineering services efforts will continue to focus on communication link encryption, GPS Denied / Comms Denied Navigation, Autonomous Air Vehicle behaviors, Simulator upgrades, ADS-B integration, and noise reduction.

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B. Program Change Summary (\$ in Millions)	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>
Previous President's Budget	1.599	1.938	1.929	-	1.929
Current President's Budget	1.547	1.935	4.039	-	4.039
Total Adjustments	-0.052	-0.003	2.110	-	2.110
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.052	-0.003	2.110	-	2.110

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305232A: RQ-11 Raven				PROJECT RA7: RQ-11 RAVEN (MIP)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
RA7: RQ-11 RAVEN (MIP)	1.547	1.935	4.039	-	4.039	2.917	2.977	3.025	3.077	Continuing	Continuing
Quantity of RDT&E Articles											
Note Prior to FY 2011, funding for this project was in PE 0305204A, Proj D10.											
A. Mission Description and Budget Item Justification											
The Small Unmanned Aircraft System (SUAS) provides the battalion and below ground maneuver elements critical situational awareness and enhances force protection. The system provides the small unit commander an organic and responsive tactical Reconnaissance, Surveillance, and Target Acquisition (RSTA) capability through the ability to view real-time Full Motion Video (FMV) and sensor data via the system ground control station. Other compatible receivers, such as the One Station Remote Video Terminal (OSRVT) and appropriately equipped manned platforms may also receive the SUAS products.											
A SUAS includes three aircraft that must be launched by hand or by some other means that does not require an improved launch/recovery location. In addition to the aircraft, the system contains ground support equipment, which includes an interoperable hand controller. This equipment is fully transportable in or on rucksack type packs that are organic to the unit.											
The SUAS RDT&E budget line includes funding for studies and incremental development/upgrade of current SUAS capabilities that will capitalize on new technology insertions based on identified user requirements. Past improvements include a Digital Data Link capability, introduced in 2010, which provided data link security, increased the number of communications channels allowing more aircraft to operate in close proximity, extended range through data link relay capability, and integrated advanced digital payloads. Future enhancements will follow the natural progression of technology and exploitation of improved payloads to meet warfighter needs. FY 2013 and future improvements will be in the areas of: continued communications link encryption; gimbaled payloads; software blocking integration; common hand controller development and integration; ADS-B integration; and noise reduction.											
Justification:											
FY 2013 engineering services efforts will continue to focus on communication link encryption, GPS Denied / Comms Denied Navigation, Autonomous Air Vehicle behaviors, Simulator upgrades, ADS-B integration, and noise reduction.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Base: Product Improvement Studies and Development								1.517	1.204	3.295	
								Articles: 0	0		
Description: Base: Product Improvement Studies and Development											

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Base: Product Improvement Studies and Development				
FY 2012 Plans: Base: Product Improvement Studies and Development				
FY 2013 Plans: Base: Product Improvement Studies and Development				
Title: Base: Program Management Support Description: Program Management Support FY 2011 Accomplishments: Base: Program Management Support FY 2012 Plans: Base: Program Management Support FY 2013 Plans: Base: Program Management Support		Articles: 0.030 0	0.571 0	0.581
Title: Base: Other Government Agencies Description: Base: Other Government Agencies FY 2012 Plans: Base: Other Government Agencies FY 2013 Plans: Base: Other Government Agencies		Articles: -	0.160 0	0.163
Accomplishments/Planned Programs Subtotals		1.547	1.935	4.039

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0305232A: <i>RQ-11 Raven</i>				PROJECT RA7: <i>RQ-11 RAVEN (MIP)</i>			
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SUAV (MIP Project D10): <i>SUAV (MIP Project D10) - PE 0305204A, (RDT&E,A)</i>	0.331									0.000	0.331
• RQ-11 (RAVEN) - A00010: <i>RQ-11 (RAVEN) - A00010</i>	37.467	86.062	25.798		25.798		25.342	25.356	26.675	0.000	250.134
D. Acquisition Strategy											
<p>SUAS acquisition strategy was based upon a full and open and was awarded in Aug 2005. The Full Rate Production Decision Review was approved in Oct 2006 with Full Rate Production beginning in April 2007. A significant system upgrade was completed in early FY2010 incorporated a Digital Data Link (DDL) which improved operational capability by: incorporating an encryption capability enabling secure data links increasing the number of channels allowing for more air vehicles to be flown in a smaller areas; extending the operational range through communication relay capability; and integration of advanced digital payloads. The first DDL systems were fielded in December 2009. Future efforts will focus on common hand controller, interoperability, and integration of additional / improved payloads utilizing a sole source Cost Plus Fixed Fee Engineering Services contract.</p>											
E. Performance Metrics											
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012		
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Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Personnel	RO	PM UAS:PM UAS	0.030	0.571		0.581		-		0.581	Continuing	Continuing	Continuing
Subtotal			0.030	0.571		0.581		-		0.581			

Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Improvements Studies and Development	SS/CPFF	Aero Vironment:Aero Vironment	1.517	1.204		3.295		-		3.295	Continuing	Continuing	Continuing
Subtotal			1.517	1.204		3.295		-		3.295			

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Agencies	MIPR	Various:Various	-	0.160		0.163		-		0.163	Continuing	Continuing	Continuing
Subtotal			-	0.160		0.163		-		0.163			

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1.547	1.935		4.039		-		4.039			

Remarks													