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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army **DATE:** February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	-	1.599	1.938	-	1.938	1.929	2.884	2.943	2.990	Continuing	Continuing
RAT: RQ-11 RAVEN (MIP)	-	1.599	1.938	-	1.938	1.929	2.884	2.943	2.990	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), RQ-11B Raven provides the ground maneuver battalions and below with situational awareness and enhanced force protection. The Raven B is a man-portable, unmanned aircraft system capable of handling a wide variety of Intelligence, Surveillance & Reconnaissance (ISR) tasks. The Raven B aircraft has a wingspan of 4.5 feet and weighs 4.2 pounds. It is hand-launched and provides aerial observation, day or night, at line-of-sight ranges up to 10 kilometers. The aircraft has an endurance rate of 90 minutes and can deliver color or infrared imagery in real time to the ground control station and remote video terminal. Raven B obtained Milestone C approval on 6 Oct 05 and successfully completed IOT&E June 06. The program obtained Full Rate Production authority 5 Oct 06. A significant system upgrade completed in early FY10 incorporated a Digital Data Link (DDL) which improved operational capability by: incorporating encryption capability allowing for secure data links; increasing the number of channels allowing for more air vehicles to be flown in a smaller area; extending the operational range through communication relay capability; and integration of advanced digital payloads. The first DDL systems were fielded in December 2010.

FY12 engineering services efforts will continue to focus on auto-land accuracy, software blocking integration, chemical payload integration, common controller, and ADS-B integration and noise reduction.

Prior to FY11, the funding for this project was in PE 0305204A, Project D10. However, due to an error, \$342 thousand for FY11 remains in PE 0305204A.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	-	1.599	1.943	-	1.943
Current President's Budget	-	1.599	1.938	-	1.938
Total Adjustments	-	-	-0.005	-	-0.005
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments 1	-	-	-0.005	-	-0.005

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army								DATE: February 2011			
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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
RA7: RQ-11 RAVEN (MIP)	-	1.599	1.938	-	1.938	1.929	2.884	2.943	2.990	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
<p>The Small Unmanned Aircraft System (SUAS), RQ-11B Raven provides the ground maneuver battalions and below with situational awareness and enhanced force protection. The RQ-11B is a man-portable unmanned aircraft system capable of handling a wide variety of Intelligence, Surveillance & Reconnaissance (ISR) tasks. The aircraft has a wingspan of 4.5 feet and weights 4.2 pounds. It is hand-launched and provides aerial observation, day or night, at line of sight ranges up to 10 kilometers. The aircraft has an endurance rate of 90 minutes and can deliver color or infrared imagery in real time to the ground control station and remote video stations. The Program obtained Milestone C approval on 6 Oct 05 and successfully completed IOT&E Jun 06. The program obtained Full Rate Production approval on 5 Oct 06. A significant system upgrade 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 area; extending the operational range through communication relay capability; and integration of advanced digital payloads. The first DDL systems were fielded in December 2009.</p> <p>Justification:</p> <p>FY 2012 engineering services efforts will continue to focus on auto-land accuracy, software blocking integration, chemical payload integration, common hand controller, and Automatic Dependant Surveillance Broadcast (ADS-B) integration and noise reduction.</p> <p>Prior to FY 2011, funding for this project was in PE 0305204A, Proj D10.</p>											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
<p>Title: Product Improvement Studies and Development</p> <p>Articles:</p> <p>Description: Product Improvement Studies and Development</p> <p>FY 2011 Plans: Product Improvement Studies and Development</p> <p>FY 2012 Plans: Product Improvement Studies and Development</p>								-	1.408 0	1.403	
<p>Title: Program Management Support</p> <p>Articles:</p>								-	0.034 0	0.378	

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army							DATE: February 2011				
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)											
							FY 2010	FY 2011	FY 2012		
Description: Program Management Support FY 2011 Plans: Program Management Support FY 2012 Plans: Program Management Support											
Title: Other Government Agencies Description: Other Government Agencies FY 2011 Plans: Other Government Agencies FY 2012 Plans: Other Government Agencies							Articles:	-	0.157 0	0.157	
Accomplishments/Planned Programs Subtotals							-	1.599	1.938		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0305204A Project D10 (MIP) (RDT&: <i>PE 0305204A Project D10 (MIP) (RDT&E,A)</i>)	1.958	0.342								0.000	2.300
• RQ-11 (RAVEN) - A00010: <i>RQ-11 (RAVEN) - A00010</i>	84.340	37.582	70.762		70.762		9.562	10.933	10.867	0.000	248.045
D. Acquisition Strategy N/A											
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 2012 Army											DATE: February 2011			
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)				
Management Services (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	-	0.034		0.378		-		0.378	Continuing	Continuing	Continuing	
Subtotal			-	0.034		0.378		-		0.378				
Product Development (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	Various	Aero Vironment:Aero Vironment	-	1.408		1.403		-		1.403	Continuing	Continuing	Continuing	
Subtotal			-	1.408		1.403		-		1.403				
Support (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	-	0.157		0.157		-		0.157	Continuing	Continuing	Continuing	
Subtotal			-	0.157		0.157		-		0.157				
Test and Evaluation (\$ in Millions)					FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	
Reliability Availability and Manintainability (RAM) Test	MIPR	Various:Various	-	-		-		-		-	0.000	0.000	Continuing	
Subtotal			-	-		-		-		-	0.000	0.000		
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			-	1.599		1.938		-		1.938				

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	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks									