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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2013 Army **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604662A: <i>FCS Reconnaissance (UAV) Platforms</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	18.792	-	-	-	-	-	-	-	-	Continuing	Continuing
FC3: <i>BCT RECONNAISSANCE (UAV) PLATFORMS</i>	18.792	-	-	-	-	-	-	-	-	Continuing	Continuing

## **Note**

Beginning in FY12 the program was terminated to meet the Army's emerging requirements and the fund for this project was used for higher priority requirements. The ADM dated 3 February 2011 officially terminated the Class I program in April 2011 and all remaining FY11 funding will be required to fund Special Termination Cost for Class I.

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

The Class IV Program was terminated in January 2010. The Class I Program was terminated in April 2011 in accordance with the DAB Review on 12 January and the 3 February 2011 Early-Infantry Brigade Combat Team Acquisition Decision Memorandum (ADM).

The XM 156 Class I system for System Development and Demonstration (SDD) provides the dismounted soldier Reconnaissance, Surveillance, and Target Acquisition (RSTA). It has the ability to hover in place and stare for military operations on rural and urban terrain. The Class I provides imagery data in order to recognize personnel and provide targeting information to the BCT Modernization network during day and night operations up to 1000 feet above ground level.

The Army has incorporated an expedited Class I into IBCT Increment 1 (IBCT INC 1) to provide additional Intelligence, Surveillance and Reconnaissance (ISR) capability to the soldier starting in 2011.

The Class I IBCT Increment 1 capability consists of a 20 pound vehicle with a Commercial Off the Shelf (COTS) Electro Optical (EO) sensor and a COTS Infra-Red (IR) sensor and a gasoline-based propulsion system.

The Class I solution for the CP 13/14 capability will consist of a 41 pound vehicle featuring an Electro Optical Infra-Red Laser Designator Laser Range Finder (EO/IR/LD/LRF) sensor and a heavy fuel based propulsion system. To meet BCT INC 1 CPD objective requirements, the Class I platform requires laser target designation capability which will be incorporated in CP 13/14. In order for the Class I to carry the laser designation and range finding capability, the airframe and propulsion system must be upgraded to accommodate the additional payload capability. The CP 13/14 air vehicle operates in complex urban and rural terrains with a vertical take-off and landing capability. The Class I system is carried in two custom Modular Lightweight Load-carrying Equipment (MOLLEs) and is air droppable with the soldier.

The XM157 Class IV UAV has a range and endurance appropriate for the brigade mission. The Class IV supports the Brigade Combat Team (BCT) Commander with communications relay, long endurance persistent stare, and wide area surveillance encompassing a 75km radius. Unique missions include Wide Band Communications Relay and minefield detection. Additionally, Class IV has the payloads to enhance the Reconnaissance, Surveillance, and Target Acquisition (RSTA) capability by cross-cueing multiple sensors. It operates at survivable altitudes from a standoff range conducted both day, night, and during adverse weather. Based on

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604662A: <i>FCS Reconnaissance (UAV) Platforms</i>
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recent determination by the Army the Class IV program was terminated in January of 2010. Future incremental development will incorporate Class 4 type requirements to conduct both the RSTA and Communications relay mission.

The Government support costs includes funding for government personnel labor, travel, training, supplies, other support costs (support contractors, Automated Data Processing (ADP), communications, supplies, and equipment), and platform unique testing.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2011</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013 Base</u></b>	<b><u>FY 2013 OCO</u></b>	<b><u>FY 2013 Total</u></b>
Previous President's Budget	50.304	-	-	-	-
Current President's Budget	18.792	-	-	-	-
Total Adjustments	-31.512	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.732	-			
• SBIR/STTR Transfer	-1.760	-			
• Other Adjustments 1	-0.293	-	-	-	-
• Other Adjustments 2	-24.700	-	-	-	-
• Other Adjustments 3	-2.027	-	-	-	-

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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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604662A: FCS Reconnaissance (UAV) Platforms				PROJECT FC3: BCT RECONNAISSANCE (UAV) PLATFORMS			
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
FC3: BCT RECONNAISSANCE (UAV) PLATFORMS	18.792	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

## Note

Beginning in FY12 the program was terminated to meet the Army's emerging requirements. Funds for this project were used for higher priority requirements. The ADM dated 3 February 2011 officially terminated the Class I program in April 2011 and all remaining FY11 funding will be required to fund Special Termination Cost for Class I.

## A. Mission Description and Budget Item Justification

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recent determination by the Army the Class IV program was terminated in January of 2010. Future incremental development will incorporate Class IV type requirements to conduct both the RSTA and Communications relay mission.					
The Government support costs includes funding for government personnel labor, travel, training, supplies, other support costs (support contractors, Automated Data Processing (ADP), communications, supplies, and equipment), and platform unique testing.					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2011	FY 2012	FY 2013
Title: Government NIE SUE 11.2 / 12.1			7.233	-	-
Articles:			0		
Description: Funding is provided for the following support effort					
FY 2011 Accomplishments: These funds provide for government personnel labor, travel, training, supplies, other support costs (support contractors, Automated Data Processing (ADP), communications, supplies, and equipment), and platform unique testing. They also funded aviation related costs associated with the NIE 11.2 /12.1. This includes blade time and government SUEs. Blade time covers the Medevac (Blackhawk), UH-60, OH-58, and HH-60. Government SUEs include Fixed Wing Aerial Tier (C-12), Shadow, Aerostat, Apache, Raven, and Blackhawk.					
Title: Funds for Army's Higher Priority Programs			2.584	-	-
Articles:			0		
Description: These funds are excess to the program.					
FY 2011 Accomplishments: As a result of the program's cancellation these funds are not required and are available for higher priorities within the Army.					
Title: Contractor: Costs for Efforts Prior to Termination			4.822	-	-
Articles:			0		
Description: Funding is provided for the following effort					
FY 2011 Accomplishments: Provided Class I UAVs to support software development for Optical Infra-Red Laser Designator Laser Range Finder (EO/IR/LD/LRF) sensor control and air vehicle flight controls. Integrated and assembled air frame and heavy fuel engine to support risk reduction testing of Engineering Development Assets (EDAs) in order to meet CPD requirements. Performed test-fix-test in the lab for EO/IR/LD/LRF sensor control and air vehicle flight control software. Delivered 4 engines and airframes for EDAs, where the EDAs are to be used to conduct initial Class I risk reduction testing and early environmental risk reduction testing. Conducted and					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
supported early risk reduction flight testing and environmental testing. Provided engineering support for integration activities for air vehicle equipment for IQT.											
Title: Special Termination Costs									4.153	-	-
Articles:									0		
Description: Funding provided for the following effort											
FY 2011 Accomplishments: Costs were paid to the contractor and subcontractors as per FAR 31.205 for; severance pay, reasonable costs continuing after termination, settlement of expenses, and the costs to return field service personnel from remote or liaison sites.											
Accomplishments/Planned Programs Subtotals									18.792	-	-
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• FC2: FCS System of Systems Engr & Program Management	471.559	298.589								0.000	770.148
• FC5: FCS Unattended Ground Sensors	1.451									0.000	1.451
• FC6: Network Hardware & Software (FCS Sustainment & Training R&D)	598.673									0.000	598.673
• B00002: BCT Network (P 40) Inc 1	46.176									0.000	46.176
• G80001: BCT Training/Logistics/ Management Inc 1	31.404	26.008								0.000	57.412
D. Acquisition Strategy											
The Army's Class IV program was terminated in January of 2010.											
The ADM dated 3 February 2011 officially terminated the Class I program in April 2011 and all remaining FY11 funding will be required to fund Special Termination Cost for Class I.											
This program was Terminated in April 2011.											

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604662A: <i>FCS Reconnaissance (UAV)</i> <i>Platforms</i>	<b>PROJECT</b> FC3: <i>BCT RECONNAISSANCE (UAV)</i> <i>PLATFORMS</i>

**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			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604662A: FCS Reconnaissance (UAV) Platforms				PROJECT FC3: BCT RECONNAISSANCE (UAV) PLATFORMS					
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
Special Termination Costs	Various	The Boeing Company:TBD	14.389	-		-		-		-	Continuing	Continuing	0.000
Funds for Army's Higher Priorities	Various	SOSI:Warren, MI	2.584	-		-		-		-	0.000	2.584	0.000
Subtotal			16.973	-		-		-		-			0.000
Remarks All Management Services costs for this project are included in 0604661 FC2 SoS Engineering and Program Management project.  1. Subcontractor: Northrup Grumman Unmanned Systems - San Diego, CA													
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 Development Costs Prior to Termination	SS/FP	Boeing Co.:TBD	40.349	-		-		-		-	0.000	40.349	0.000
Government NIE SUE 11.2 / 12.1	SS/FP	various:various	7.233	-		-		-		-	0.000	7.233	0.000
Product Development - Digital Data Link Capability	SS/FP	Aerovironment:TBD	25.926	-		-		-		-	0.000	25.926	0.000
Subtotal			73.508	-		-		-		-	0.000	73.508	0.000
Remarks Remark 1: Subcontractor: Honeywell International, Inc - Albuquerque, New Mexico Remark 2: Subcontractor: Northrop Grumman Unmanned Systems - San Diego, CA Remark 3: With cancellation of Class IV, the program cannot utilize the MQ-8B Firescout earmarked funding provided by Congress.													

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Army											<b>DATE:</b> February 2012		
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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
Government Support Costs	SS/FP	various:various	7.233	-		-		-		-	0.000	7.233	0.000
<b>Subtotal</b>			7.233	-		-		-		-	0.000	7.233	0.000

  

	Total Prior Years Cost	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	97.714	-	-	-	-			0.000

  

**Remarks**



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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT			
2040: Research, Development, Test & Evaluation, Army								PE 0604662A: FCS Reconnaissance (UAV)								FC3: BCT RECONNAISSANCE (UAV)			
BA 5: Development & Demonstration (SDD)								Platforms								PLATFORMS			

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Army			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604662A: <i>FCS Reconnaissance (UAV)</i> <i>Platforms</i>	<b>PROJECT</b> FC3: <i>BCT RECONNAISSANCE (UAV)</i> <i>PLATFORMS</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Termination	3	2011	3	2011