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Exhibit R-2, PB 2011 Army RDT&E Budget Item Justification									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 3: Advanced Technology Development (ATD)				R-1 ITEM NOMENCLATURE PE 0603006A: Command, Control, Communications Advanced Technology							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	Base FY 2011 Estimate	OCO FY 2011 Estimate	Total FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	11.307	12.352	8.102	0.000	8.102	7.073	7.316	8.556	11.666	0	74.474
257: DIGITAL BATTLEFLD COMM	2.391	3.730	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
592: SPACE APPLICATION TECH	4.687	3.568	4.442	0.000	4.442	4.812	5.018	6.216	9.291	Continuing	Continuing
DF7: DF7	4.229	5.054	3.660	0.000	3.660	2.261	2.298	2.340	2.375	Continuing	Continuing
A. Mission Description and Budget Item Justification											
Efforts in this program element (PE) mature and demonstrate advanced space technology applications that support the Army's ability to control and exploit space assets that contribute to current and future military operations as defined in the national, DoD, and Army space policies. This PE provides applications for enhanced intelligence, reconnaissance, surveillance, target acquisition, position/navigation, missile warning, ground-to-space surveillance, and command and control capabilities. Project 592 supports the maturation and demonstration of Space Applications Technology efforts that provide technology options for networked and integrated surveillance and command and control capabilities to enable information superiority, enhanced situational awareness, and support for distributed operations. Project 592 also matures and demonstrates high altitude and space sensor and communications payloads for Army applications and provides technology risk reduction capability for ground-to-space surveillance system development. Project DF7 supports classified activities. Properly accessed individuals can obtain further information from the Assistant Secretary of the Army for Acquisition Logistics & Technology (ASAALT) Special Programs Office. Project 257 funds congressional special interest items. Work in this PE is coordinated with PE 0602120A (Sensors and Electronic Survivability) and PE 0603008 (Electronic Warfare Advanced Technology). The cited work is consistent with the Department of Defense Research and Engineering Strategic Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan. Work in this PE is performed by the US Army Space and Missile Defense Technical Center in Huntsville, AL.											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0603006A: Command, Control, Communications Advanced Technology			
BA 3: Advanced Technology Development (ATD)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	11.544	8.667	8.146	0.000	8.146
Current President's Budget	11.307	12.352	8.102	0.000	8.102
Total Adjustments	-0.237	3.685	-0.044	0.000	-0.044
• Congressional General Reductions		-0.065			
• Congressional Directed Reductions					
• Congressional Rescissions		0.000			
• Congressional Adds		3.750			
• Congressional Directed Transfers					
• Reprogrammings	0.067	0.000			
• SBIR/STTR Transfer	-0.304	0.000			
• Adjustments to Budget Years	0.000	0.000	-0.044	0.000	-0.044
Change Summary Explanation					
FY10 Congressionally directed increases.					

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 3: Advanced Technology Development (ATD)				R-1 ITEM NOMENCLATURE PE 0603006A: Command, Control, Communications Advanced Technology				PROJECT 257: DIGITAL BATTLEFLD COMM			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	Base FY 2011 Estimate	OCO FY 2011 Estimate	Total FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
257: DIGITAL BATTLEFLD COMM	2.391	3.730	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
A. Mission Description and Budget Item Justification Congressional Interest Item funding for Digital Battlefield advanced technology development.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
Program #1 Vertical/Horizontal Integration of Space Technologies and Applications (VISTA): In FY09, developed and demonstrated VISTA intelligent agent software and architecture in a jammer warning distribution application. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 Base FY 2011 Plans: FY 2011 Base OCO FY 2011 Plans: FY 2011 OCO							2.391	0.000	0.000	0.000	0.000
Program #2 Program Increase							0.000	3.730	0.000	0.000	0.000

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 3: <i>Advanced Technology Development (ATD)</i>	R-1 ITEM NOMENCLATURE PE 0603006A: <i>Command, Control, Communications Advanced Technology</i>	PROJECT 257: <i>DIGITAL BATTLEFLD COMM</i>			
<u>B. Accomplishments/Planned Program (\$ in Millions)</u>					
	FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
<i>FY 2009 Accomplishments:</i> FY 2009 <i>FY 2010 Plans:</i> FY 2010 <i>Base FY 2011 Plans:</i> FY 2011 Base <i>OCO FY 2011 Plans:</i> FY 2011 OCO					
Accomplishments/Planned Programs Subtotals	2.391	3.730	0.000	0.000	0.000
<u>C. Other Program Funding Summary (\$ in Millions)</u>					
N/A					
<u>D. Acquisition Strategy</u>					
N/A					
<u>E. Performance Metrics</u>					
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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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 3: <i>Advanced Technology Development (ATD)</i>				R-1 ITEM NOMENCLATURE PE 0603006A: <i>Command, Control, Communications Advanced Technology</i>				PROJECT 592: <i>SPACE APPLICATION TECH</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	Base FY 2011 Estimate	OCO FY 2011 Estimate	Total FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
592: <i>SPACE APPLICATION TECH</i>	4.687	3.568	4.442	0.000	4.442	4.812	5.018	6.216	9.291	Continuing	Continuing

A. Mission Description and Budget Item Justification

Efforts in this project mature and demonstrate advanced space technology applications that support the Army's ability to control and exploit space assets that contribute to current and future military operations as defined in the national, DoD, and Army space policies. This project matures and demonstrates advanced technologies in the areas of light weight materials, miniaturization, reduced power consumption, and advanced data collection, processing, and dissemination. This project also develops algorithms that process space and near space sensor data in real and near real time for integration into battlefield operating systems. It matures and demonstrates payloads, sensors and data down link systems for tactically responsive space and high altitude platforms. This project provides space advanced technology risk reduction capability for ground-to-space surveillance and systems development. Work in this Project is coordinated with PE 0602120A (Sensors and Electronic Survivability) and PE 0603008 (Electronic Warfare Advanced Technology). The cited work is consistent with the Department of Defense Research and Engineering Strategic Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan. Work in this PE is performed by the US Army Space and Missile Defense Technical Center in Huntsville, AL. This program is designated as a DoD Space Program.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
Program #1 Vertical/Horizontal Integration of Space Technology and Applications (VISTA): This effort matures and demonstrates algorithms and intelligent agent based software applications to provide missile threat warning for Warfighters on-the-move. In FY09, matured and demonstrated vertical and horizontal integration of missile threat warning, collaborative planning, and tailored data as well as information distribution to verify compatibility of intelligent agent and knowledge management technologies. In coordination with the US Army Communications - Electronics Research, Development, and Engineering Center (CERDEC), integrated and demonstrated VISTA with Army networks and within battle command applications. In FY10, mature the intelligent agent software technology including automated and seamless distribution of relevant space and strategic system-developed situational awareness information to specific Brigade and below tactical units in a format that can be directly integrated into their applicable Battle Command System, including Force XXI Battle Command Brigade and Below (FBCB2) and Command and Control Personal Computer (C2PC); and demonstrate the	3.290	2.450	2.236	0.000	2.236

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 3: Advanced Technology Development (ATD)		R-1 ITEM NOMENCLATURE PE 0603006A: Command, Control, Communications Advanced Technology		PROJECT 592: SPACE APPLICATION TECH		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
automated network-centric VISTA capability in the Army Training and Doctrine Command (TRADOC) Battle Laboratory Collaborative Simulation Environment. In FY11, will further mature the intelligent agent technology in cooperation with complementary network-centric intelligent agent technology being developed by CERDEC; will demonstrate seamless missile warning and situational awareness automated information dissemination for tactical On-the-Move (OTM) forces at the Brigade and below level. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 Base FY 2011 Plans: FY 2011 Base OCO FY 2011 Plans: FY 2011 OCO						
Program #2 Payload Technology Development: This effort matures technologies for smaller, Warfighter-responsive sensor and communication payloads for use in both space and high altitude environments. In FY09, matured tactical radio relay payloads, to include Single Channel Ground to Air Radio System (SINCGARS) radio and antenna subsystems, to improve survivability, range, and bandwidth in high altitude and space environments; and demonstrated tactical radio relay payload performance at high altitude. In FY10, mature Electro-Optical/Infrared (EO/IR) imaging space sensor; using prior year demonstration data, mature the tactical radio relay payload to improve bandwidth and support more users; demonstrate improved tactical radio relay payload performance at high altitude. In FY11, will mature high speed data relays for use in data links of high altitude and space-based		1.397	1.032	2.206	0.000	2.206

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
assets; will complete the development of a flight ready EO/IR imaging space sensor; will prepare a small satellite with data exfiltration capability for launch integration. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 Base FY 2011 Plans: FY 2011 Base OCO FY 2011 Plans: FY 2011 OCO						
Program #3 Small Business Innovative Research/Small Business Technology Transfer Programs FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 Base FY 2011 Plans: FY 2011 Base OCO FY 2011 Plans: FY 2011 OCO		0.000	0.086	0.000	0.000	0.000

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<u>B. Accomplishments/Planned Program (\$ in Millions)</u>								
				FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
Accomplishments/Planned Programs Subtotals				4.687	3.568	4.442	0.000	4.442
<u>C. Other Program Funding Summary (\$ in Millions)</u> N/A								
<u>D. Acquisition Strategy</u> N/A								
<u>E. Performance Metrics</u> 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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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army				PE 0603006A: Command, Control,				DF7: DF7			
BA 3: Advanced Technology Development (ATD)				Communications Advanced Technology							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	Base FY 2011 Estimate	OCO FY 2011 Estimate	Total FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
DF7: DF7	4.229	5.054	3.660	0.000	3.660	2.261	2.298	2.340	2.375	Continuing	Continuing
A. Mission Description and Budget Item Justification											
The purpose of the project is to conduct classified research efforts. The details of the efforts may be provided upon request to appropriately cleared individuals.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	Base FY 2011	OCO FY 2011	Total FY 2011
Program #1							4.229	4.913	3.660	0.000	3.660
Classified efforts											
FY 2009 Accomplishments:											
FY 2009											
FY 2010 Plans:											
FY 2010											
Base FY 2011 Plans:											
FY 2011 Base											
OCO FY 2011 Plans:											
FY 2011 OCO											
Program #2							0.000	0.141	0.000	0.000	0.000
Small Business Innovative Research/Small Business Technology Transfer Programs											

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B. Accomplishments/Planned Program (\$ in Millions)					
		FY 2009	FY 2010	Base FY 2011	OCO FY 2011
<i>FY 2009 Accomplishments:</i> FY 2009					
<i>FY 2010 Plans:</i> FY 2010					
<i>Base FY 2011 Plans:</i> FY 2011 Base					
<i>OCO FY 2011 Plans:</i> FY 2011 OCO					
Accomplishments/Planned Programs Subtotals		4.229	5.054	3.660	0.000
C. Other Program Funding Summary (\$ in Millions) N/A					
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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