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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0604258A: TARGET SYSTEMS DEVELOPMENT							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	13.124	13.544	8.614	0.000	8.614	8.625	8.649	8.575	8.460	Continuing	Continuing
238: AERIAL TARGETS	4.304	4.251	4.525	0.000	4.525	4.945	5.102	5.061	4.996	Continuing	Continuing
459: GROUND TARGETS	8.820	9.293	4.089	0.000	4.089	3.680	3.547	3.514	3.464	Continuing	Continuing
A. Mission Description and Budget Item Justification											
This program funds aerial and ground target hardware and software development, maintenance, and upgrades. The overall objective is to ensure validation of weapon system accuracy and reliability by developing aerial and ground targets essential for test and evaluation (T&E). These targets are economical and expendable, remotely controlled or stationary, and often destroyed in use. The Army is the Tri-Service lead under Reliance for providing rotary wing, mobile ground, towed, and designated targets for T&E. The Army executes development of some Service-peculiar target requirements in support of quality assurance, lot acceptance, and training and continues development of Service-peculiar and on-going target materiel upgrades to maintain continuity with current weapons technology and trends in modern and evolving Army weapons.											
B. Program Change Summary (\$ in Millions)											
			FY 2009	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	
Previous President's Budget			13.453	13.615		8.865		0.000		8.865	
Current President's Budget			13.124	13.544		8.614		0.000		8.614	
Total Adjustments			-0.329	-0.071		-0.251		0.000		-0.251	
• Congressional General Reductions				-0.071							
• Congressional Directed Reductions				0.000							
• Congressional Rescissions			0.000	0.000							
• Congressional Adds				0.000							
• Congressional Directed Transfers				0.000							
• Reprogrammings			0.000	0.000							
• SBIR/STTR Transfer			-0.329	0.000							
• Adjustments to Budget Years			0.000	0.000		-0.251		0.000		-0.251	
Change Summary Explanation											
The Change Summary includes the following: None required.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0604258A: <i>TARGET SYSTEMS DEVELOPMENT</i>				PROJECT 238: <i>AERIAL TARGETS</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
238: <i>AERIAL TARGETS</i>	4.304	4.251	4.525	0.000	4.525	4.945	5.102	5.061	4.996	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification <p>Aerial Targets support Army Transformation and the Overseas Contingency Operations by providing for development, acquisition, operation, storage, update, and maintenance of realistic surrogate or acquired threat high-performance, multi-spectral aerial targets and development of virtual target computer models of aerial targets. Modern weapons require test, evaluation, and training using threat representative aerial targets to assess their effectiveness on the battlefield. This program encompasses a family of rotary and fixed-wing targets; full-scale, miniature, and subscale targets; virtual targets; ancillary devices; and their control systems. These products are required to adequately stress weapon systems undergoing test and evaluation (T&E). In order to stress systems during T&E, aerial targets must have flight characteristics, signatures, and other performance factors that emulate the modern threat. This program includes long-range planning to determine future target needs and development of coordinated requirement documents; the management of target research, development, test and evaluation process; execution of the validation process to ensure that surrogate targets adequately represent the threat; development and acquisition of surrogate and acquired targets; and continuing maintenance, storage, and development/enhancement/update via engineering services of the developed and acquired threat targets to ensure availability for the T&E customer. The Army is the Reliance lead for rotary wing targets and towed target developments and the Tri-Service lead for procurement and enhancement of the MQM-107 fixed wing target.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Program #1						0.497	0.488	0.494	0.000	0.494	
FY09-FY11: Continues management and sustainment of Army (Reliance Lead) Rotary Wing Targets, including updates for obsolescence, maintenance, and safety to support T&E programs such as Surface Launched Advanced Medium Range Air to Air Missile (SLAMRAAM), Navy Large Aircraft Infrared Countermeasures (LAIRCM), Navy Standard Missile (SM-6), and others. <i>FY 2009 Accomplishments:</i> FY 2009											

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #2 FY09-FY11: Provides Research, Development, Test and Evaluation (RDT&E) portion of funds needed to update aging High Speed Aerial Target (HSAT, MQM-107) equipment to overcome obsolescence for spare and repair parts, and to maintain equipment and documentation for safe operations supporting T&E programs such as Patriot, Stinger, Joint Land Attack Cruise Missile Defense Elevated Netted Sensors (JLENS), MEADS, SLAMRAAM, and classified programs for Army and Tri-Service customers. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO		1.200	1.275	1.280	0.000	1.280
Program #3		0.614	0.523	0.552	0.000	0.552

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 6: RDT&E Management Support	R-1 ITEM NOMENCLATURE PE 0604258A: TARGET SYSTEMS DEVELOPMENT	PROJECT 238: AERIAL TARGETS				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY09-FY11: Provides for engineering support for all Target Tracking Control Systems (TTCS) and aerial target control components. Updates documentation of the system and operations and maintenance manuals. Supports operational repair and maintenance with engineering analysis of target control system performance. Provides for design modifications to solve obsolescence problems and updates software to correct anomalies. Provide for software performance enhancement modifications to support T&E missions, improve test sets and develop upgraded operator displays. This will provide support to programs such as Patriot, SLAMRAAM, MEADS, and others. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO						
Program #4 FY09-FY11: Continues development, enhancement, maintenance, and storage for all RDT&E aerial targets, towed targets, and ancillary devices. Continues development and testing of Low Cost Towed target systems (Cruise Missile Tow Target, Reduced Radar Tow Target, and the Special Low Altitude Tow Target) emulating current threats at a very low cost to Patriot, JLENS, SLAMRAAM and classified customers. Signature modification and performance enhancement efforts for these targets is ongoing. Investigate/test other cost-saving towed systems (Glide-Tow, Height-Keeping-Tow, and Tow Test Bed) for Air Defense Weapons System customers.		0.689	0.669	0.641	0.000	0.641

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: FY 2009						
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #5 FY09-FY11: Supports research and development of Aerial Virtual Targets for evolving Army and DOD simulation standards and evolving implementation techniques; focuses on simulation target models of airplanes, helicopters, missiles, unmanned aerial vehicles, and aerial targets in commonly used formats to support visualization, infrared analysis, and radar analysis simulations; supports verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DOD T&E communities. Simulation target models are employed to facilitate simulations for developmental testing (DT) and operational testing (OT) test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are being used by Developmental Test Command's simulations, Operational Test Command's Analytical Simulation and Instrumentation Suite (OASIS), and multiple weapon system's T&E activities. These models are available on-line to all T&E simulation developers.		0.493	0.549	0.843	0.000	0.843
FY 2009 Accomplishments: FY 2009						

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: FY 2010					
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					
Program #6 FY09-FY11: Provides engineering support for the Integrated Avionics Program (IAP). Designs component changes to correct for obsolescence. Update software to correct problems and to modify the software to support specific test and evaluation mission requirements. IAP provides the avionics for aerial targets to support multiple mission requirements for programs such as Patriot, SLAMRAAM, and MEADS. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO	0.289	0.170	0.241	0.000	0.241
Program #7	0.522	0.508	0.474	0.000	0.474

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY09-FY11: Provides engineering funding for the generic, tactical class Unmanned Aerial System Target (UAS-T) to provide threat representative support for SLAMRAAM testing in FY09-13,C-RAM technology demonstration testing in FY10-11, Littoral Combat Ship testing in FY10-11 and MEADS testing in future years. Provides management for approximately 20 customer funded production air vehicles, initial ground support equipment, initial spares, and operational test support missions. Enables identification and correction of system anomalies identified during operations. Provides limited engineering capability to address minor enhancements to the basic target system identified during operations. The target system can be controlled manually and in a beyond-visual-range mode using either the CloudCap Piccolo ground station or the Target Tracking Control System-UHF ground control station. This target system provides significant cost avoidance over using operational, tactical Unmanned Aerial Vehicles for T&E Targets. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO					
Program #8 FY10: Small Business Innovative Research / Small Business Technology Transfer Programs FY 2009 Accomplishments: FY 2009	0.000	0.069	0.000	0.000	0.000

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<u>B. Accomplishments/Planned Program (\$ in Millions)</u>						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2010 Plans:</i> FY 2010 <i>FY 2011 Base Plans:</i> FY 2011 Base <i>FY 2011 OCO Plans:</i> FY 2011 OCO						
Accomplishments/Planned Programs Subtotals		4.304	4.251	4.525	0.000	4.525
<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 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0604258A: <i>TARGET SYSTEMS DEVELOPMENT</i>				PROJECT 459: <i>GROUND TARGETS</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
459: <i>GROUND TARGETS</i>	8.820	9.293	4.089	0.000	4.089	3.680	3.547	3.514	3.464	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification <p>This program funds Army efforts to support test and evaluation (T&E) of advanced weapon systems and supports ArmyTransformation by developing surrogates, acquiring foreign equipment and developing virtual target computer models of ground vehicle targets. These products are required to adequately stress weapon systems undergoing T&E. This tasking includes long-range planning to determine future target needs and development of coordinated requirement documents; the centralized management of the ground target research, development, test and evaluation processes; execution of the validation process; acquisition of foreign equipment; and continuing maintenance, storage, and development/enhancement/update via engineering services of developed and acquired targets to ensure availability for T&Ecustomers. This program also manages use of current assets and operates centralized spare parts program. The US Army is the Tri-Service lead for providing mobile ground targets for T&E.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1 FY09-FY11: Mobile Ground Targets Operations Effort. Funds management and oversight of five Primary Operating Centers to include operation, storage, maintenance, repair, safety and configuration management for 155 active and 152 inactive Foreign Mobile Ground Target Vehicles, and acquisition of new material and spare parts. Efforts support users such as Army Brigade Combat Team Modernization (ABCTM), Apache Block III, Guided Multiple Launch Rocket System (GMLRS), Intelligent Munitions System (IMS), Non-Line-of-Sight Launch System (NLOS-LS), and others. <i>FY 2009 Accomplishments:</i> FY 2009							2.230	2.461	2.605	0.000	2.605

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: FY 2010								
FY 2011 Base Plans: FY 2011 Base								
FY 2011 OCO Plans: FY 2011 OCO								
Program #2 FY09-FY10: Manages Mobile Ground Target Hardware effort. Supplements the Mobile Ground Targets threat fleet with up to date threat representative targets that emulate the visual, infrared, radio frequency, and acoustic signatures to support T&E (e.g.ABCTM, NLOS, IMS and others). FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO				2.874	2.580	0.000	0.000	0.000
Program #3				1.038	1.041	0.776	0.000	0.776

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY09-FY11: Ground Virtual Targets Effort. Supports research and development of Ground Virtual Targets for evolving Army and DOD simulation standards and evolving implementation techniques; focuses on simulation target models of wheeled and tracked ground vehicles in commonly used model formats; develops simulation target models visualization simulations, infrared (IR) analysis simulations, and radio frequency (RF) analysis simulations; supports verification and validation of models, and provides archiving and distribution of simulation target models to simulation developers throughout the Army and DOD T&E communities. Simulation target models are employed to facilitate simulations for both developmental testing (DT) and operational testing (OT); Virtual Targets support test planning, test rehearsal, post-test analysis, hardware-in-the-loop testing, and execution of test events that are too costly or difficult to be conducted under actual field conditions. These models are used in the Developmental Test Command's simulations, and the Operational Test Command's Analytical Simulation and Instrumentation Suite (OASIS), and by multiple weapon system's T&E (e.g. Joint Common Missile (JCM), Excalibur, Mid Range Munition (MRM), etc.). These models are available on-line to all T&E simulation developers. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO					
Program #4	2.678	2.951	0.708	0.000	0.708

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY09-FY11: Operational Threat Vehicle Company Effort. Funds acquire and field fully mission capable targets (such as Main battle Tanks, Infantry Fighting Vehicles, and Armored Personnel Carriers) to meet emerging requirements for threat representative missions. This program will provide realistic threat capable targets for use in force-on-force exercises to allow Blue Forces to think and adapt to the changing battle dynamic as it unfolds. FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO						
Program #5 FY10: Small Business Innovative Research / Small Business Technology Transfer Program FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base		0.000	0.260	0.000	0.000	0.000

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<u>B. Accomplishments/Planned Program (\$ in Millions)</u>					
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO
<i>FY 2011 OCO Plans:</i> FY 2011 OCO					
Accomplishments/Planned Programs Subtotals		8.820	9.293	4.089	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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