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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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare 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	38.256	219.608	172.269	0.000	172.269	94.196	101.079	108.243	129.668	Continuing	Continuing
665: A/C SURV EQUIP DEV	1.654	0.000	4.900	0.000	4.900	9.587	21.805	14.347	18.855	Continuing	Continuing
L12: Signals Warfare Development (MIP)	3.604	10.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
L13: COUNTER-IEDS	0.000	18.598	0.000	0.000	0.000	0.000	49.990	69.991	89.988	Continuing	Continuing
L15: ARAT-TSS	2.187	3.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
L16: TROJAN DEVELOPMENT (MIP)	1.480	3.502	0.000	0.000	0.000	0.000	0.000	0.000	4.644	Continuing	Continuing
L20: ATIRCM/CMWS	29.331	184.387	167.369	0.000	167.369	84.609	29.284	23.905	16.181	Continuing	Continuing
A. Mission Description and Budget Item Justification											
FY 2011 budget request funds Electronic Warfare Development. This program element (PE) encompasses engineering and manufacturing development for tactical electronic warfare (EW), signals warfare (SW), aircraft survivability equipment (ASE), battlefield deception, rapid software reprogramming and protection of personnel and equipment from hostile artillery. EW encompasses the development of tactical EW equipment and systems mounted in both ground and air vehicles. The systems under this program provides the Army with the capability to degrade or deny hostile forces the effective use of their communications, countermortar/counterbattery radars, surveillance radars, infrared/optical battlefield surveillance systems and electronically fused munitions. Existing Army EW systems must be replaced or upgraded to maintain their capability in the face of threats. This program element satisfies requirements for brigade, division, corps and higher commanders to conduct electronic warfare to meet tactical and Special Electronic Mission Aircraft (SEMA), attack/scout, and assault/cargo mission requirements. The Prophet program provides for the development of multifunction ground based and airborne intelligence and electronic warfare systems. Trojan will complete Proof-of-Principle R&D for specific applications in advanced threat signals processing, prototype software upgrades, high frequency (HF) algorithms for compact antenna array technology (CAAT), search and acquisition capabilities for unattended signal collectors, and new digital intelligence collection, processing and dissemination technology. The Army Reprogramming Analysis Team (ARAT) Project will develop, test and equip an Army-wide infrastructure capable of rapidly reprogramming electronic combat software embedded in offensive and defensive weapon systems.											

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B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	36.206	248.463	99.277	0.000	99.277
Current President's Budget	38.256	219.608	172.269	0.000	172.269
Total Adjustments	2.050	-28.855	72.992	0.000	72.992
• Congressional General Reductions		-47.453			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		18.598			
• Congressional Directed Transfers		0.000			
• Reprogrammings	2.921	0.000			
• SBIR/STTR Transfer	-0.871	0.000			
• Other Adjustments 3	0.000	0.000	72.992	0.000	72.992
Change Summary Explanation					
Change Summary Explanation: Funding - FY 2010: Funding - FY 10: Increase for for Overseas Contingency Operations efforts. FY 2011: \$72.992 million increase to support Signals Warfare Development (+\$4.9 million) and ATIRCM/CMWS development (+\$68.092 million).					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
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<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
665: <i>A/C SURV EQUIP DEV</i>	1.654	0.000	4.900	0.000	4.900	9.587	21.805	14.347	18.855	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>The objective of the Aircraft Survivability Equipment (ASE) Development project is to improve radio frequency (RF) ASE for Army aviation. Milestone Decision Authority (MDA) approved phase 1 of a phased/incremental path forward, supported by the user and HQDA. Phase I upgrades the Processor Line Replaceable Unit (LRU) of the AN/APR-39A(V)1 Radar Signal Detecting Set through modernization and reduced parts count. Along with improved maintainability and reliability, performance will be enhanced via increased processing speed and expanded memory. These improvements will result in faster response time, better dense environment capability and improved parameter measurement. Phase 1 serves to make the currently fielded system viable until affordable improved RF ASE capability can be pursued in Phases 2 and 3. Phase 2 initiates development of an improved digital Radar Warning Receiver (RWR) and Phase 3 adds active Electronic Countermeasures (ECM) for selected aircraft. FY 09 RDTE funding had a withhold of \$2.3 Million dollars. FY 10 NO RDTE funding for this fiscal year. FY 11 funding begins the prototyping of the digital Radar Warning Receiver (RWR).</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
Program #1							1.654	0.000	2.600	0.000	2.600
In-house and program management administration											
<i>FY 2009 Accomplishments:</i>											
FY 2009											
<i>FY 2010 Plans:</i>											
FY 2010											
<i>FY 2011 Base Plans:</i>											
FY 2011 Base											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army					<b>DATE:</b> February 2010						
<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 0604270A: <i>Electronic Warfare Development</i>		<b>PROJECT</b> 665: <i>A/C SURV EQUIP DEV</i>							
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
		<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>					
<i>FY 2011 OCO Plans:</i> FY 2011 OCO											
Program #2 Phase II Product Development (Digital RWR)		0.000	0.000	2.300	0.000	2.300					
<i>FY 2009 Accomplishments:</i> FY 2009											
<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		1.654	0.000	4.900	0.000	4.900					
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• Ord. #1: <i>AZ3511 RFCM</i>	39.206	2.525	0.000	0.000	0.000	0.000	0.000	0.000	7.851	Continuing	Continuing
<b>D. Acquisition Strategy</b>											
The Army Radio Frequency (RF) Aircraft Survivability Equipment (ASE) is managed by Program Director ASE (PD ASE) for integration and installation on Army Aviation platforms. PD ASE proposed a three phased path forward commensurate with user priorities and life cycle management philosophy. Phase 1, approved by MDA, upgrades the currently fielded AN/APR-39A(V)1 Radar Signal Detecting Set which is employed by approximately 3,000 aircraft; awarded sole source via ECP to the existing contractor of the APR-39A. Phase 2											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army		<b>DATE:</b> February 2010
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<p>develops an improved digital Radar Warning Receiver for modernized Army platforms by capitalizing on emerging technologies to provide enhanced aircrew situational awareness. Phase 3 will develop and integrate active Electronic Countermeasures jamming capability for select aircraft. Competition will be considered for the future phases.</p>		
<p><b><u>E. Performance Metrics</u></b></p> <p>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.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development				PROJECT 665: A/C SURV EQUIP DEV					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
AN/APR-39(V)1 Upgrade	C	Nothing entered for Activity and Location. Location could not be determined.	19.126	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Digital Radar Warning Receiver (RWR)	C	TBD Location could not be determined.	0.000	0.000		2.300		0.000		2.300	Continuing	Continuing	0
Subtotal			19.126	0.000		2.300		0.000		2.300			0.000
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Matrix Support	C	Multiple Location could not be determined.	3.124	0.000		1.500		0.000		1.500	Continuing	Continuing	0
Contractor Support	C/FFP	Multiple Location could not be determined.	0.538	0.000		0.776		0.000		0.776	Continuing	Continuing	0
Subtotal			3.662	0.000		2.276		0.000		2.276			0.000

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> 665: <i>A/C SURV EQUIP DEV</i>					
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Remarks</b>													
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Phase II DT/OT/FOTE	C	Nothing entered for Activity and Location. Location could not be determined.	0.145	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Flight Test/Range Support (Phase I)	C	ATTC Ft. Rucker, AL	0.450	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Phase I Test and Evaluation	C	TSSQ Eglin AFB, FL	0.400	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Processor Upgrade Evaluation	C	Evaluation Center APG MD	0.025	0.000		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			1.020	0.000		0.000		0.000		0.000			0.000
<b>Remarks</b>													

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> 665: <i>A/C SURV EQUIP DEV</i>					
<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Project Management	C	PD ASE Location could not be determined.	0.121	0.000		0.158		0.000		0.158	Continuing	Continuing	0
Other Development	C	PD ASE Location could not be determined.	7.985	0.000		0.166		0.000		0.166	Continuing	Continuing	0
<b>Subtotal</b>			8.106	0.000		0.324		0.000		0.324			0.000
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			31.914	0.000		4.900		0.000		4.900			0.000
<b>Remarks</b>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army																								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)												R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development												PROJECT 665: A/C SURV EQUIP DEV			

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development		PROJECT 665: A/C SURV EQUIP DEV	
Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Phase 2 Prototyping	4	2010	3	2012
Phase 2 MS B	4	2012	4	2012
Phase 2 Development	4	2012	2	2013
Phase 2 DT	3	2013	3	2014
Phase 2 LRIP	4	2014	4	2014

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L12: <i>Signals Warfare Development (MIP)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
L12: <i>Signals Warfare Development (MIP)</i>	3.604	10.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											
<b>Note</b> Not applicable for this item.											
<b>A. Mission Description and Budget Item Justification</b> Prophet's primary mission is providing 24-hour Situation Development and Information Superiority to the supported maneuver brigade to enable the most effective engagement of enemy forces. Prophet is an integral part of the Army Transformation, providing Near Real Time (NRT) information to the Brigade Commander within his combat decision cycle. It is the tactical commander's sole organic ground-based Signals Intelligence/Electronic Warfare (SIGINT/EW) system for the Division, Brigade Combat Team (BCT), Stryker Brigade Combat Team (SBCT), Armored Cavalry Regiments (ACR) and Battlefield Surveillance Brigade (BfSB). Prophet provides the tactical commander with the next generation SIGINT/EW - radio detection/direction finding capabilities. Prophet stationary and on-the-move direction finding information develops battlespace visualization, Intelligence Preparation of the Battlefield (IPB) and target development for enemy and gray emitters within radio line-of-sight across the brigade area of responsibility. This NRT information when processed provides a key component of the fused intelligence Common Operating Picture (COP). Prophet interfaces via Prophet Control with the maneuver brigade Analysis Control Team - Enclave (ACT-E) and All Source Analysis System (ASAS) Intelligence Fusion System (IFS). Prophet Control capability will migrate into Distributed Common Ground System-Army (DCGS-A). The ACT-E forwards the gathered information to the division and armored cavalry Analysis and Control Element (ACE). Also, Prophet interfaces directly with the National SIGINT Enterprise either via Prophet Control or via Wideband Beyond Line of Sight Satellite Communications. Prophet enables the Brigade Commander to detect signals while the vehicle is moving, a first for a Tactical SIGINT system. Prophet is utilizing an evolutionary acquisition strategy: Electronic Support (ES) Block I (SIGINT), ES 1 (Modern Signals), ES 2, Electronic Attack (EA) and Prophet Enhanced. No FY2011 funding under this PE.FY11 through FY15 funding transferred from this PE (0604270A - L12) to 0304270 - EW5.											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
Program #1						3.604	5.192	0.000	0.000	0.000	

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Develop SIGINT Terminal Guidance  <i>FY 2009 Accomplishments:</i> FY 2009  <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						
Program #2  Conduct Electronic Warfare Concept Exploration  <i>FY 2009 Accomplishments:</i> FY 2009  <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		0.000	4.850	0.000	0.000	0.000

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<b>B. Accomplishments/Planned Program (\$ in Millions)</b>														
										<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
Accomplishments/Planned Programs Subtotals										3.604	10.042	0.000	0.000	0.000
<b>C. Other Program Funding Summary (\$ in Millions)</b>														
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>			
• Ord. #1: 354270 - EW5 (RDT&E)	0.000	0.000	18.426	0.000	18.426	10.457	10.489	8.618	9.059	0	57.049			
• Ord. #2: BZ7326 Prophet Ground (TIARA)	113.749	64.294	71.517	0.000	71.517	49.820	21.125	7.482	4.657	Continuing	Continuing			
• Ord. #3: BZ9751 Special Purpose Systems (TIARA) (Prophet Only)	2.416	6.999	7.646	0.000	7.646	9.178	10.967	3.557	3.835	Continuing	Continuing			
• Ord. #4: PE 305288G Defense Cryptological Program for PROPHET	5.960	0.316	2.164	0.000	2.164	6.028	5.610	4.775	4.873	Continuing	Continuing			
<b>D. Acquisition Strategy</b>														
<p>Acquisition Strategy - The Prophet R&amp;D Acquisition Strategy is structured to optimize system capability while reducing risk and streamlining business and engineering processes. The Prophet Enhanced entered production in 2QFY09 via Full and Open competition. The Prophet Enhanced contract is a Firm-Fixed-Price, Indefinite-Delivery Indefinite-Quantity with provisions to support R&amp;D and other developmental work. The Prophet Enhanced contract will be used to achieve the Prophet Enhanced Hardware and Prophet Enhanced/ES1 Software upgrades. They will be executed via Time and Material/Cost Plus Delivery Orders to the contract. Development testing and support to FOT&amp;E testing will be included in the Delivery Orders. The System Integration Lab will be established utilizing US Army RDECOM's CERDEC - I2WD personnel and facilities procure the necessary test bed hardware and its installation, maintenance of test bed and conduct of new product development/integration/testing. The pre-system acquisition activities for Integrate Electronic Warfare Systems will support the Analysis of Alternatives efforts and Pre-Milestone A activities.</p>														
<b>E. Performance Metrics</b>														
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 2011 Army										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development					PROJECT L12: Signals Warfare Development (MIP)	

**Product Development (\$ in Millions)**

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Prophet Spiral 2 ES SDD Contract	C/CPIF	General Dynamics Decision Systems Scottsdale, AZ	26.614	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Spiral 1 (SP1) ES Development Platforms	C/FPI	L3 Linkabit San Diego, CA	4.494	0.000		0.000		0.000		0.000	Continuing	Continuing	0
4303 Enhancements	C/CPIF	Raytheon Tampa, FL	0.260	0.000		0.000		0.000		0.000	Continuing	Continuing	0
SIGINT Terminal Guidance	C	I2WD Fort Monmouth, NJ	0.000	3.292		0.000		0.000		0.000	Continuing	Continuing	0
Electronic Warfare Concept Exploration	C	TBD Location could not be determined.	0.000	4.870		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			31.368	8.162		0.000		0.000		0.000			0.000

**Remarks**

The contract for Prophet Enhanced Production was awarded 25 Feb 09 with a protest filed 10 Mar 09. The protest was withdrawn on 20 Apr 09. The net impact was to delay awarding and starting work on P3I Development.

**Support (\$ in Millions)**

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Matrix Support	C	CECOM	8.701	0.432		0.000		0.000		0.000	Continuing	Continuing	0

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development				PROJECT L12: Signals Warfare Development (MIP)					
Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
		Fort Monmouth NJ												
Contractor Engineering Support	C	CACI Eatontown, NJ	4.025	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
Contractor Engineering Support - 2	C	Mitre Eatontown, NJ	1.619	1.200		0.000		0.000		0.000	Continuing	Continuing	0	
Subtotal			14.345	1.632		0.000		0.000		0.000			0.000	
Remarks														
Test and Evaluation (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Prepare for and Conduct Spiral 2 ES - Phase I Demo	C	EPG/AEC Location could not be determined.	10.095	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
Geo-Location Testing	C	BAH Eatontown, NJ	0.365	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
Threat T&E	C	TRADOC Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
Subtotal			10.460	0.000		0.000		0.000		0.000			0.000	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L12: <i>Signals Warfare Development (MIP)</i>					
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<u>Remarks</u>													
<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management	C	PM Electronic Warfare Fort Monmouth, NJ	6.007	0.248		0.000		0.000		0.000	Continuing	Continuing	0
Blue Marauder (Congressional Add)	C	PM CSIS Fort Belvoir, VA	4.850	0.000		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			10.857	0.248		0.000		0.000		0.000			0.000
<u>Remarks</u>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			67.030	10.042		0.000		0.000		0.000			0.000
<u>Remarks</u>													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army																				DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)										R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development										PROJECT L12: Signals Warfare Development (MIP)			

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development	PROJECT L12: Signals Warfare Development (MIP)		
Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
ES 1 IOT&E	2	2009	2	2009
ES 1 SOTM - DT 1	3	2009	4	2009
ES 1 SOTM - DT 2	3	2009	4	2009
ES 1 Recap/Reset Contract Award	2	2012	2	2012
ES 1 Recap/Reset Fielding	3	2012	4	2015
Prophet Control (PC) Sole Source - Contract Award	1	2010	1	2010
PC Production - Sole Source Contract	2	2010	4	2010
Prophet Enhanced (PE) - Contract Award	1	2009	1	2009
Prophet Control (PC) - Competitive Contract Award	2	2011	2	2011
PC Production - Competitive Contract	2	2012	1	2013
Production - Prophet Enhanced	1	2009	3	2015
Fielding - Prophet Enhanced	4	2009	3	2015
FOT&E - P3I	1	2012	1	2012
FOT&E - P3I - 2	1	2013	1	2013
FOT&E - P3I - 3	1	2014	1	2014
FOT&E - P3I - 4	1	2015	1	2015

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L13: <i>COUNTER-IEDS</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
L13: <i>COUNTER-IEDS</i>	0.000	18.598	0.000	0.000	0.000	0.000	49.990	69.991	89.988	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>The Counter Radio Controlled Improvised Explosive Devices (RCIED) Electronics Warfare (CREW) family of Electronic Counter Measure (ECM) systems is used to provide essential force protection for fixed sites, vehicle platforms and soldiers. The CREW family of systems currently in production and being fielded includes the CREW 2 systems. CREW is designed to protect personnel, vehicle convoys and provide gate security from Radio Controlled Improvised Explosive Devices (RCIEDs). The RCIED threat continues to rapidly evolve based on threat TTP adaptations to fielded CREW 2 systems. Consequently, efforts are continually required to collect and analyze the threat's use of the electro-magnetic environment (EME) to support timely CREW system software firmware upgrades and the implementation of improved signal processing algorithms to increase jamming effectiveness and improve CREW system compatibility and interoperability. Additionally, new hardware upgrades (design and testing) are needed to expand frequency coverage, jamming effectiveness at increased ranges and to improve spectral purity of the CREW system.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
Program #1  FY10, funding will be used to support on-going anechoic chamber developmental testing as well as field testing at Yuma Proving Grounds (YPG), AZ to verify and validate software threat loads for the CREW family of systems. It will also be used for modeling and simulation studies to continuously measure and improve the CREW 2 systems in terms of improved compatibility with Blue Force C3 and improved interoperability with other fielded jammers in the theaters of operation (OIF/OEF).  <i>FY 2009 Accomplishments:</i> FY 2009							0.000	18.598	0.000	0.000	0.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army					<b>DATE:</b> February 2010						
<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 0604270A: <i>Electronic Warfare Development</i>		<b>PROJECT</b> L13: <i>COUNTER-IEDS</i>						
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>											
			<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>					
<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			0.000	18.598	0.000	0.000					
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>											
<b><u>Line Item</u></b>	<b><u>FY 2009</u></b>	<b><u>FY 2010</u></b>	<b><u>FY 2011 Base</u></b>	<b><u>FY 2011 OCO</u></b>	<b><u>FY 2011 Total</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013</u></b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>Cost To Complete</u></b>	<b><u>Total Cost</u></b>
• Ord. #1: WARLOCK VA8000 (2035 <i>Other Procurement, Army</i> )	354.599	164.435	24.127	225.682	249.809	24.145	241.414	226.150	210.180	0	1,470.732
<b><u>D. Acquisition Strategy</u></b>											
The Tech Insertion (P3I) effort for engineering and manufacturing development must be conducted by the current OEM primes because there are no formal and complete Technical Data Packages (TDPs) that exist to support near term competition. Consequently, these efforts will be awarded through the competitive CERDEC S3 and TESS existing contract vehicles for the applicable CREW devices.											
<b><u>E. Performance Metrics</u></b>											
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 2011 Army											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development				PROJECT L13: COUNTER-IEDS					
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
P3I Range and Frequency Leverage - Duke	C	SRCTec NY	0.000	7.700		0.000		0.000		0.000	Continuing	Continuing	12.100	
P3I Range and Frequency Leverage - CVRJ	C	ITT FPS California	0.000	3.600		0.000		0.000		0.000	Continuing	Continuing	15.125	
Subtotal			0.000	11.300		0.000		0.000		0.000			27.225	
Remarks														
Support (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
COMMS Compatability & EMI	C	CERDEC Ft. Monmouth (S&TCD)	0.000	2.600		0.000		0.000		0.000	Continuing	Continuing	0	
Modeling and Simulation	C	CERDEC Ft. Monmouth (S&TCD)	0.000	1.600		0.000		0.000		0.000	Continuing	Continuing	0	
Government Engineering Support	C	Various S3 & R2 Sprt Krs Location could not be determined.	0.000	0.368		0.000		0.000		0.000	Continuing	Continuing	0	
	C	I2WD	0.000	0.800		0.000		0.000		0.000	Continuing	Continuing	0	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010																																																																								
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<b>Support (\$ in Millions)</b> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method &amp; Type</th> <th>Performing Activity &amp; Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Government Engineering Support - 2</td> <td></td> <td>FT. Monmouth</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td align="right" colspan="3"><b>Subtotal</b></td> <td>0.000</td> <td>5.368</td> <td></td> <td>0.000</td> <td></td> <td>0.000</td> <td></td> <td>0.000</td> <td></td> <td></td> <td>0.000</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Engineering Support - 2		FT. Monmouth												<b>Subtotal</b>			0.000	5.368		0.000		0.000		0.000			0.000														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Engineering Support - 2		FT. Monmouth																																																																																	
<b>Subtotal</b>			0.000	5.368		0.000		0.000		0.000			0.000																																																																						
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				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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																																																																						
Chamber Test	C	I2WD Ft. Monmouth	0.000	0.350		0.000		0.000		0.000	Continuing	Continuing	0																																																																						
Operational Range Test	C	YPG AZ	0.000	1.200		0.000		0.000		0.000	Continuing	Continuing	0																																																																						
<b>Subtotal</b>			0.000	1.550		0.000		0.000		0.000			0.000																																																																						
<b>Remarks</b>																																																																																			

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010																														
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L13: <i>COUNTER-IEDS</i>																																	
<b>Management Services (\$ in Millions)</b>																																									
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>																															
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>																												
PMO Staff/Travel OH	C	PM Electronic Warfare Location could not be determined.	0.000	0.180		0.000		0.000		0.000	Continuing	Continuing	0																												
Program SETA Support	C	CACI/NJ/VA Location could not be determined.	0.000	0.200		0.000		0.000		0.000	Continuing	Continuing	0																												
<b>Subtotal</b>			0.000	0.380		0.000		0.000		0.000			0.000																												
<b>Remarks</b> Note: All efforts are based on availability of funds in early 2Q10 & 2QFY11.      These numbers are all estimates until we complete RFPs and receive proposals.																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="3"></td> <td style="text-align: center;"><b>Total Prior Years Cost</b></td> <td colspan="2" style="text-align: center;"><b>FY 2010</b></td> <td colspan="2" style="text-align: center;"><b>FY 2011 Base</b></td> <td colspan="2" style="text-align: center;"><b>FY 2011 OCO</b></td> <td style="text-align: center;"><b>FY 2011 Total</b></td> <td style="text-align: center;"><b>Cost To Complete</b></td> <td style="text-align: center;"><b>Total Cost</b></td> <td style="text-align: center;"><b>Target Value of Contract</b></td> </tr> <tr> <td align="right" colspan="3"><b>Project Cost Totals</b></td><td align="right">0.000</td><td align="right">18.598</td><td></td><td align="right">0.000</td><td></td><td align="right">0.000</td><td></td><td align="right">0.000</td><td></td><td></td><td align="right">27.225</td> </tr> </table>																	<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	<b>Project Cost Totals</b>			0.000	18.598		0.000		0.000		0.000			27.225
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>																												
<b>Project Cost Totals</b>			0.000	18.598		0.000		0.000		0.000			27.225																												
<b>Remarks</b>																																									

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2011 Army		<b>DATE:</b> February 2010
<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 0604270A: <i>Electronic Warfare Development</i>	<b>PROJECT</b> L13: <i>COUNTER-IEDS</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development		PROJECT L13: COUNTER-IEDS
Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Duke P3I	1	2010	3	2011
Duke P3I Operational Test	3	2011	3	2011
Duke P3I Production	4	2011	3	2014
Duke P3I Fielding	1	2012	4	2014
CVRJ P3I	2	2010	2	2012
CVRJ P3I Operational Test	3	2012	3	2012
CVRJ P3I Production	4	2012	3	2013
CVRJ P3I Fielding	2	2013	4	2013

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L15: <i>ARAT-TSS</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
L15: <i>ARAT-TSS</i>	2.187	3.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>The Army Reprogramming Analysis Team (ARAT) is a Department of the Army established program to develop techniques, methods, tools and architecture to reprogram mission software embedded in Army Force Protection Systems (FPS) and Targeting Sensing Systems (TSS) in response to changes in threat signatures. Current military operations are conducted in a rapidly changing threat environment, where Improvised Explosive Devices (IEDs), IR man-portable air defense systems (MANPADS) seekers, radar guided surface-to-air-missiles (SAM), laser guided weapons, anti-helicopter mines, and targeting sensors are proliferating and evolving. Integrated solutions are required to counter increasingly sophisticated EW threats, and the ARAT reprogramming infrastructure supports the tactical Commander by providing timely rapid-reprogramming, and software/information dissemination for Army supported, Joint, allied service, Electronic Warfare (EW) Integrated Reprogramming (EWIR) target acquisition, target engagement, vehicle survivability, and aircraft survivability equipment (ASE). ARAT efforts support Electronic Attack (EA), Electronic Protect (EP) and Electronic Support (ES).The ARAT rapid-reprogramming infrastructure supports tactical requirements for deployed aircraft and ground-based (e.g. CREW) survivability systems including those deployed in the CENTCOM area of responsibility (AOR). ARAT identifies and analyzes threat signature changes which affect FPS &amp; TSS; determines the impact of observed signature changes on FPS &amp; TSS; creates new mission data software to adapt the system to the changes; disseminates the software changes; and provides methods to upload the new software into the affected FPS or TSS. Each element within the ARAT infrastructure plays a specific role within the program's rapid reprogramming process, providing the Warfighter with the capability to install mission and target identification software at the lowest possible level - maximizing flexibility for tactical commanders. ARAT participates in the operational and developmental test design of Army FPS, and supports Service and JCS Reprogramming Exercises in all theaters. ARAT R&amp;D enables continuing development of 1) automated threat analysis tools to rapidly detect (flag) threat changes within the intelligence system, 2) tools to minimize the time to develop Mission Data Sets (MDS), 3) tools and technology to minimize the time required to test and validate MDSs, 4) improved communications conduits to transmit mission software changes to field users, and 5) enhanced mission-software uploading tools. These efforts allow for rapid threat analysis, simulation, software development, distribution and uploading of software changes directly to the supported Warfighter.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>						
Program #1	0.587	0.410	0.000	0.000	0.000						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
CREW Reprogramming - Determine intelligence/information requirements and then study methods to reduce the effort and time necessary to collect, process, analyze and disseminate information required for CREW reprogramming. Based on established reprogramming methodology, develop tools to reprogram CREW and establish government organic post production & MDS support for the system. Continuing effort is required in out-years to accommodate threat changes and CREW system improvements.  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 #2  Automated Multi-Spectral IED Trigger Intercept: Conduct initial study to develop process for automated multi-spectral IED trigger intercept in order to support future CREW reprogramming requirements. Determine intelligence/information requirements, and develop methodology for data collection to reprogram multi-spectral IED triggers.  FY 2009 Accomplishments: FY 2009	0.400	0.075	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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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 #3  Keeping Pace with the Enemy & Technology - Analysis & Studies for EO/IR/UV Multi-Spectral FPS/TSS Support: In order to keep pace with changing threat and technology ARAT requires assets to better understand the impact of the physical battlefield environment on deployed high-technology sensors and their sustainment. This effort will 1) study the intelligence data requirements to support MDS development for Electro-optical/Ultra-violet/Infra-red (EO/UV/IR) and other multi-spectral sensors for aviation & non-aviation force protection systems (FPS) and target sensing systems and to include active protection systems (APS), 2) Develop government organic knowledge and application-base enabling reprogramming of future systems and 3) Perform requirements analysis and concept development for the reprogramming of multi-spectral TSS.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base		0.420	0.380	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: FY 2011 OCO						
Program #4  Infrastructure improvements - Operational Flight Program (OFP) sustainment environment - Develop and deploy operational flight program (OFP) development environment for missile warning systems (MWS). Determine data and analysis requirements for MANPADS characterization and establish a government-organic analysis and sustainment process to support OFP's and subsequently adapt MWS's to new threats. Currently, no government organic capability exists, increasing the risk that systems can not be readily adapted to changing threats.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.000	2.214	0.000	0.000	0.000
Program #5  Infrastructure improvements (general) - Enhance the ARAT communications architecture to facilitate the transmission of mission software changes to FPS & TSS users, with emphasis on remote user and highly mobile Warfighter connectivity. Develop/implement integrated ASE test environment to ensure MDS and aircraft counter-measure (CM) Integration flight test support.		0.180	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development		PROJECT L15: ARAT-TSS		
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 #6  Platform-specific TSS, FPS & survivability equipment support - Conduct requirements analysis and concept development for the reprogramming of ground platform (e.g. Stryker) Target Sensing Systems (TSS), Active Protection Systems (APS) and other Force Protections Systems (FPS), and expand the reprogramming of aviation TSS, FPS and Aircraft Survivability Equipment (ASE). Building on the work completed in prior FYs, determine individual platform benefits vs. potential costs to upgrade systems on each ground or Aviation platform. Initiate lab testing of potential system updates to verify the additional benefit and identify intelligence collection methodology to enable information use for reprogramming purposes.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010		0.113	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #7  MDS Distribution - Develop new methods to distribute and load mission data set (MDS) software changes to Warfighters, expand the application to new FPS & TSS systems, and provide common reprogramming devices in the field (currently Memory Loader/Verifiers (MLVs). Enhanced software will be distributed to all users requiring upgraded software and to users of new TSS. End goal is to have MDSs distributed automatically over-the-network (OTN) through tactical communications networks and loaded via platform data busses.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.321	0.000	0.000	0.000	0.000
Program #8  Threat Flagging & MDS Reprogramming Tool Development - Develop applications for ARAT internal system-specific threat flagging, threat analysis, MDS generation, and MDS testing. Enhance threat flagging (threat		0.166	0.000	0.000	0.000	0.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army				<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>		<b>PROJECT</b> L15: <i>ARAT-TSS</i>		
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>						
		<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<p>performance change detection) and intelligence analytical tools, based on supported systems performance criteria, to rapidly identify and counter emerging &amp; changing threats that adversely affect the performance of FPS &amp; TSS. Create MDS development, testing and validation tools to decrease time from threat-change detection to the distribution of MDS products in order to increase the accuracy and fidelity of threat identification, and reduce the engineering involvement/workload associated with the manually intensive analysis and MDS development processes. Define requirements and develop tools to migrate to a data support infrastructure that employs Next Generation EWIR System (NGES) when the NGES is deployed and the current EWIR system is decommissioned.</p> <p><i>FY 2009 Accomplishments:</i> FY 2009</p> <p><i>FY 2010 Plans:</i> FY 2010</p> <p><i>FY 2011 Base Plans:</i> FY 2011 Base</p> <p><i>FY 2011 OCO Plans:</i> FY 2011 OCO</p>						
Accomplishments/Planned Programs Subtotals		2.187	3.079	0.000	0.000	0.000
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b> N/A						
<b><u>D. Acquisition Strategy</u></b> The efforts to be funded in this project will require a combination of systems specific and high-tech knowledge. The contractual services portion for the project will be obtained from both the CECOM Software Engineering Center (SEC) competitive omnibus and the RDEC High Tech contracts.						

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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 &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604270A: <i>Electronic Warfare Development</i>	PROJECT L15: <i>ARAT-TSS</i>
<p><b>E. Performance Metrics</b></p> <p>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.</p>		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L15: <i>ARAT-TSS</i>					
<b>Product Development (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Labor (internal Gov't)	C	CECOM Fort Monmouth, NJ & Aberdeen Proving Grounds, MD	2.332	0.550		0.000		0.000		0.000	Continuing	Continuing	0
Travel	C	Various sites Location could not be determined.	0.380	0.095		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			2.712	0.645		0.000		0.000		0.000			0.000
<b>Remarks</b> Organic Government R&D Development Labor.													
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Development Support (CECOM RDEC T&E CECOM SEC Omnibus)	C	TBD/Various sites Location could not be determined.	5.877	2.434		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			5.877	2.434		0.000		0.000		0.000			0.000
<b>Remarks</b> R&D Development Costs associated with contractual ARAT Team.													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army							DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>			R-1 ITEM NOMENCLATURE PE 0604270A: <i>Electronic Warfare Development</i>			PROJECT L15: <i>ARAT-TSS</i>						
			Total Prior Years Cost	FY 2010	FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			8.589	3.079	0.000		0.000		0.000			0.000
Remarks												

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L16: <i>TROJAN DEVELOPMENT (MIP)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
L16: <i>TROJAN DEVELOPMENT (MIP)</i>	1.480	3.502	0.000	0.000	0.000	0.000	0.000	0.000	4.644	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>This project is a Tactical Intelligence and Related Activities (TIARA) program. TROJAN RDT&amp;E supports TROJAN Classic XXI (TCXXI) and next generation (NexGEN) future capabilities to fulfill the Army's need for a worldwide, deployable, remotable, intelligence, surveillance and reconnaissance (ISR) support that can dynamically execute operations from sanctuary-based to deployed assets in theater. In support of the Objective Force and Future Combat System (FCS), TCXXI will provide soldiers with a real-world, hands-on, live and near-real time SIGINT training environment sustaining, maintaining and enhancing their military occupational specialty (MOS) proficiencies and specific target expertise. This operational readiness training will fulfill the Army's larger intelligence training requirement via a secure collaborative architecture. A key factor for success the Objective Force and FCS will be the ability to collect, process and use information about an adversary while preventing similar information from being disclosed. TROJAN is a combined operational and readiness mission system which uses advanced networking technology to provide seamless rapid radio relay, secure communications to include voice, data, facsimile, and electronic reconnaissance support to U.S. forces throughout the world. TROJAN operations may be easily tailored to fit military intelligence unit training schedules and surged during specific events to involve every aspect of the tactical intelligence collection, processing, analysis and reporting systems. This project engineers, tests and evaluates new digital intelligence collection, processing and dissemination technology using the fielded TROJAN systems, prior to the acquisition of those technologies. As part of the Objective C4ISR Architecture, these capabilities will enable processing and dissemination of real-time intelligence data from various sources to form the intelligence needed to issue orders inside the threat decision cycle. To that end, it is imperative that TROJAN keeps pace with digitization initiatives in order to respond aggressively to the emerging intelligence communication threats.</p>											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
Program #1						0.500	0.370	0.000	0.000	0.000	
Integrate and test specialized hardware/software for classified pre-processing of new signals of interest utilizing enhanced signal processing algorithms. Resource development of GLAIVE software. Integrated several new NSA SW packages-efforts still ongoing.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010		
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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 #2  Acquire and apply multi-bandwidth compression algorithm technology to maximize TROJAN intelligence network throughput.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO	0.330	0.320	0.000	0.000	0.000
Program #3	0.000	0.357	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Develop prototype QRC Receiver packages for fixed and transportable TROJAN systems to acquire non-standard modulations using DSP and FPGA technologies.  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  Integrate Direction Finding (DF) and geolocation technologies into TROJAN Remote Receiving Groups (RRGs).  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.650	0.350	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010			
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #5  Develop hardware/software interface for TCXXI system and NexGEN to ONEROOF storage system  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.000	0.400	0.000	0.000	0.000
Program #6  Develop specialized software enhancements to the TROJAN audio streaming subsystems to improve system redundancy & throughput capacity and system management capabilities; Investigate compression/processing technologies to reduce communications bandwidth requirements for remoted TROJAN systems, including streaming audio technologies.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010		0.000	0.256	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development	PROJECT L16: TROJAN DEVELOPMENT (MIP)			
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					
Program #7  Development of smaller more mobile SATCOM dishes and receivers. Development of more efficient use of bandwidth, Comm's on the move and man-packable intelligence collection systems.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO	0.000	0.701	0.000	0.000	0.000
Program #8  Labor for two SW engineers at NSA in support of GLAIVE and other above applicable efforts. Labor for one MAT DEV technologist, one MAT DEV software and one MAT DEV HW engineer.  FY 2009 Accomplishments: FY 2009	0.000	0.748	0.000	0.000	0.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army					<b>DATE:</b> February 2010						
<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 0604270A: <i>Electronic Warfare Development</i>		<b>PROJECT</b> L16: <i>TROJAN DEVELOPMENT (MIP)</i>						
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>											
			<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>				
<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			1.480	3.502	0.000	0.000	0.000				
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>											
<b><u>Line Item</u></b>	<b><u>FY 2009</u></b>	<b><u>FY 2010</u></b>	<b><u>FY 2011 Base</u></b>	<b><u>FY 2011 OCO</u></b>	<b><u>FY 2011 Total</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013</u></b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>Cost To Complete</u></b>	<b><u>Total Cost</u></b>
• Ord. #1: <i>New OFS item</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0
<b><u>D. Acquisition Strategy</u></b>											
This Acquisition Strategy for the TROJAN Classic XXI System supported by TROJAN RDT&E is to adapt and leverage from Commercial Off the Shelf (COTS) and Government Off the Shelf (GOTS) products. Additionally leverage off of development by DoD and other Government agencies to the greatest extend possible. TROJAN RDT&E is used to fund the development of enhancing these technologies to meet specific user requirements. The funding for production and fielding of these capabilities are funded under TROJAN BA0331.											
<b><u>E. Performance Metrics</u></b>											
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 2011 Army											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development					PROJECT L16: TROJAN DEVELOPMENT (MIP)				
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Develop Prototype QRC Receiver packages	C	CERDEC I2WD Ft Monmouth Location could not be determined.	3.006	0.810		0.000		0.000		0.000	Continuing	Continuing	0	
Develop DF Capabilities for TROJAN RRG	C	CERDEC I2WD Ft Monmouth Location could not be determined.	0.642	0.835		0.000		0.000		0.000	Continuing	Continuing	0	
Investigate Compression / processing technologies	C	CERDEC I2WD Ft Monmouth Location could not be determined.	1.038	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
Develop specialized software enhancements to TROJAN audio streaming	C	CERDEC I2WD Ft Monmouth Location could not be determined.	1.437	0.710		0.000		0.000		0.000	Continuing	Continuing	0	
Develop hardware/software interface to ONEROOF	C	CERDEC I2WD Ft Monmouth Location could not be determined.	0.700	0.791		0.000		0.000		0.000	Continuing	Continuing	0	
Subtotal			6.823	3.146		0.000		0.000		0.000			0.000	
Remarks														

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L16: <i>TROJAN DEVELOPMENT (MIP)</i>					
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Aquire & Apply muliti bandwidth compr Algorithm	C	CECOM I2WD FT Monmouth Location could not be determined.	0.900	0.115		0.000		0.000		0.000	Continuing	Continuing	0
Labor	C	REX Office-Ft Meade; CECOM Ft Monmouth Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
<b>Subtotal</b>			0.900	0.115		0.000		0.000		0.000			0.000
<b>Remarks</b>													
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Integrate/test hardware/ software	C	CECOM I2WD FT Monmouth Location could not be determined.	2.090	0.260		0.000		0.000		0.000	Continuing	Continuing	0
Operational test/eval of enhanced SIG Processing	C	CECOM I2WD Ft Monmouth	0.429	0.000		0.000		0.000		0.000	Continuing	Continuing	0

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010																																																										
<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 0604270A: <i>Electronic Warfare Development</i>					<b>PROJECT</b> L16: <i>TROJAN DEVELOPMENT (MIP)</i>																																																											
<b>Test and Evaluation (\$ in Millions)</b> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method &amp; Type</th> <th>Performing Activity &amp; Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td></td> <td></td> <td>Location could not be determined.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td align="right" colspan="3"><b>Subtotal</b></td> <td align="right">2.519</td> <td align="right">0.260</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td></td> <td align="right">0.000</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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			Location could not be determined.												<b>Subtotal</b>			2.519	0.260		0.000		0.000		0.000			0.000
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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																																																								
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<b>Subtotal</b>			2.519	0.260		0.000		0.000		0.000			0.000																																																								
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			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																								
<b>Project Cost Totals</b>			10.242	3.521		0.000		0.000		0.000			0.000																																																								
<b>Remarks</b>																																																																					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L20: <i>ATIRCM/CMWS</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
L20: <i>ATIRCM/CMWS</i>	29.331	184.387	167.369	0.000	167.369	84.609	29.284	23.905	16.181	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>The US Army operational requirements concept for Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). It is an integrated warning and countermeasure system to enhance aircraft survivability against IR guided threat missile systems. The core element of the SIIRCM concept is the Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS) Program. ATIRCM is a US Army program to develop, test, and integrate defensive infrared (IR) countermeasures capabilities into existing, current generation host platforms for more effective protection against a greater number of IR- guided missile threats than afforded by currently fielded IR countermeasures. The CMWS also functions as a stand-alone system with the capability to detect missiles and provide audible and visual warnings to the pilot(s); and, when installed with the ICMD, activates expendables to provide a degree of protection. ATIRCM/CMWS is the key IR survivability system for Future Force Army aircraft. The ATIRCM/CMWS, a subsystem to a host aircraft, is an integrated ultraviolet (UV) missile warning system and an IR Laser Jamming and Improved Countermeasure Dispenser (ICMD). ATIRCM/CMWS program was restructured per an Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&amp;L)) Acquisition Decision Memorandum (ADM) dated April 15, 2009. USD (AT&amp;L) designated the ATIRCM/CMWS program as an Acquisition Category (ACAT) 1D special interest program, and directed the establishment of the CMWS, ATIRCM QRC and CIRCM subprograms. The ATIRCM Quick Reaction Capability (QRC) subprogram is an ATIRCM program transition in response to Operational Needs Statement (ONS) Number 08-5661 dated June 10, 2008. To address this requirement, an ATIRCM QRC for seventy (70) CH-47 helicopters was authorized by an Acquisition Decision Memorandum (ADM) signed September 15, 2008 by the Army Acquisition Executive (AAE). This ONS outlines the urgent requirement to equip seventy (70) CH-47 helicopters being used in SWA in support of OIF/OEF with an improved IRCM capability to counter threats from advanced MANPADS. This urgent requirement was recently increased to equip a total of eighty-three (83) CH-47 helicopters by an Acquisition Decision Memorandum (ADM) signed on April 15, 2009 by the Defense Acquisition Executive (DAE). The Common Infrared Countermeasure (CIRCM) subprogram is an infrared countermeasure system that interfaces with a Missile Warning System (MWS) to provide near spherical coverage of the host platform in order to defeat all IR threats (classified appendix of Spec). Increment 1 weight will be 120lb (T), 700 hrs MTBF reliability. The CIRCM system is installed on the following Army platforms (T): UH-60L, UH-60M, HH-60L, HH-60M, CH-47F, AH-64D, MH-60M, MH-47G, C/RC-12, C-23B, (O): UH-60A, CH-47D, OH-58D, MH-6, AH-6, C-20, C-26, EO-5, UC-35, Navy platforms (T): MH-60R, MH-60S, UH-1Y, AH-1Z, MV-22, (O): CH-53K, CH-46, UH-1N, AH-1W and Air Force platforms: (T): HH-60G, (O): JCA. The CMWS Gen 3 meets Tier 1 requirements. Threat upgrade is needed to fulfill CMWS threat requirements. The A-kit is the modification hardware, wiring harness, cable, etc., necessary to install and interface the ATIRCM/CMWS Mission Kit to each platform. The A-kit ensures the Mission Kit is functionally and physically operational with the host platform. The Mission Kit consists of the ATIRCM/CMWS which performs the missile detection, false alarm rejection, and missile declaration functions of the system. The Electronic Control Unit (ECU) of the CMWS sends a missile alert signal to on-board avionics and other Aircraft Survivability Equipment (ASE) such as expendable flare dispensers. Threat missiles detected by the CMWS are handed over to the ATIRCM. The Hostile Fire Detection System (HFDS) provides small arms fire detection, orientation, type and real time cueing to all aircrew members enabling avoidance and/or response. FY 2011 Core RDT&amp;E dollars in the amount of \$167.369 million support technology assessment and development for Common Infrared</p>											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development	PROJECT L20: ATIRCM/CMWS				
Countermeasure (CIRCM), a separate ATIRCM increment established by an Acquisition Decision Memorandum (ADM) dated April 15, 2009; and begins development activities for HFDS.FY 2011 OCO RDT&E dollars in the amount of \$48.000 million support a Hostile Fire Detection System (HFDS) Quick Reaction Capability (QRC).						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1		20.734	146.569	120.907	0.000	120.907
Base: Product Development						
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 #2		0.995	18.749	14.948	0.000	14.948
Base: Management Services						
FY 2009 Accomplishments:						
FY 2009						
FY 2010 Plans:						
FY 2010						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development	PROJECT L20: ATIRCM/CMWS			
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base					
FY 2011 OCO Plans: FY 2011 OCO					
Program #3  Base: Test and Evaluation  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO	7.602	13.951	31.514	0.000	31.514
Program #4  Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)  FY 2009 Accomplishments: FY 2009	0.000	5.118	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Army									DATE: February 2010		
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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											
Accomplishments/Planned Programs Subtotals						29.331	184.387	167.369	0.000	167.369	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• Ord. #1: APA, BA 4 AZ3507 ASE Infrared CM	565.462	285.007	174.222	197.990	372.212	227.479	258.517	242.942	221.407	527.990	2,701.016
D. Acquisition Strategy											
The AAE approved the ATIRCM/CMWS path forward in December 2005. This funding supports an acquisition strategy of buying CMWS separately from ATIRCM, while installing A-kits on all modernized aircraft. The current CMWS production contract is a fixed-priced, five year, Indefinite Delivery, Indefinite Quantity (IDIQ) contract to BAE Systems. The ATIRCM QRC effort was procured under two letter contracts; one for ATIRCM QRC A-kits and one for ATIRCM QRC B-kits. A new contract for ATIRCM QRC A-kits and B-kits is in process for award in FY10. The schedule and costs have been updated to include CIRCM, a next generation ATIRCM. The CIRCM contract is planned to be competitively awarded in late FY10.The ECP to incorporate the Gen 3 ECU will be accomplished in FY10. Fielding of Gen 3 ECUs will begin in FY11.CIRCM will continue pre-MSB activities entering into a full and open competition for EMD in FY12. The EMD phase will be followed by a competitive award for the production phase of the program.The HFDS MDD will occur in 3QFY10; Technology Development Phase will begin in FY11 and continue to FY13.											
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 2011 Army											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development				PROJECT L20: ATIRCM/CMWS					
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
ATIRCM QRC SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
ATIRCM QRC (AIRCMM)	C/CPIF	Thiokol Brigham City, UT	1.563	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
ATIRCM QRC EMD Basic Contract	C/CPAF	BAE Systems Nashua, NH	23.574	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
ATIRCM QRC 6 Lot/EMD/RDT	SS/CPFF	BAE Systems Nashua, NH	199.250	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
ATIRCM QRC	C/CPFF	Cowley Chantilly, VA	0.100	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
ATIRCM QRC Test Facility	C/CPFF	Amherst HSV, AL	1.300	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
CIRCM Design and Development	C/TBD	TBD Location could not be determined.	0.000	53.465		24.073		0.000		24.073	Continuing	Continuing	0	
CIRCM CH-47F A-kit NRE	C/TBD	TBD Location could not be determined.	0.000	10.144		10.197		0.000		10.197	Continuing	Continuing	1.563	
CIRCM Hardware	C/TBD	TBD Location could not be determined.	0.000	15.660		23.860		0.000		23.860	Continuing	Continuing	0	
CMWS Modeling and Simulation	C	CAS HSV, AL	4.500	0.000		1.200		0.000		1.200	Continuing	Continuing	0	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army											DATE: February 2010			
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Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Cost Category Item is empty.	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
CMWS SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0	
CMWS GEN 3 ECU ETC	C/CPFF	TBD Location could not be determined.	0.000	5.500		0.000		0.000		0.000	Continuing	Continuing	0	
CMWS GEN 3 Providence Additional Phases	C/CPFF	TBD Location could not be determined.	0.000	10.100		0.000		0.000		0.000	Continuing	Continuing	0	
CMWS System Development	C/CPFF	TBD Location could not be determined.	23.571	10.000		20.000		0.000		20.000	Continuing	Continuing	0	
CMWS Tier 2/3 Threat Upgrades	C/Various	BAE Systems Nashua, NH	2.475	0.000		1.000		0.000		1.000	Continuing	Continuing	0	
HFDS Modernization Efforts	C/TBD	TBD Location could not be determined.	0.000	40.100		40.577		0.000		40.577	Continuing	Continuing	0	
HFDS QRC Effort	C/TBD	TBD Location could not be determined.	0.000	1.600		0.000		0.000		0.000	Continuing	Continuing	0	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army											DATE: February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				<b>R-1 ITEM NOMENCLATURE</b> PE 0604270A: Electronic Warfare Development				<b>PROJECT</b> L20: ATIRCM/CMWS					
<b>Product Development (\$ in Millions)</b>													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Subtotal			256.333	146.569		120.907		0.000		120.907			1.563
<b>Remarks</b>													
<b>Support (\$ in Millions)</b>													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
CMWS SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CMWS Contractor Support	C/FFP	Huntsville AL	37.911	0.000		0.000		0.000		0.000	Continuing	Continuing	9.554
CMWS Matrix Support	C	CECOM Ft Monmouth NJ; AMCOM, Huntsville AL	3.055	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Subtotal			40.966	0.000		0.000		0.000		0.000			9.554
<b>Remarks</b>													

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L20: <i>ATIRCM/CMWS</i>					
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
ATIRCM QRC SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
ATIRCM QRC Test and Evaluation	C	Various Location could not be determined.	158.426	0.000		0.000		0.000		0.000	Continuing	Continuing	3.519
CIRCM Test and Evaluation	C/TBD	TBD Location could not be determined.	0.000	12.201		22.514		0.000		22.514	Continuing	Continuing	0
Cost Category Item is empty.	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CMWS SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CMWS Test and Evaluation	C	Various Location could not be determined.	0.000	1.750		9.000		0.000		9.000	Continuing	Continuing	0
<b>Subtotal</b>			158.426	13.951		31.514		0.000		31.514			3.519
<b>Remarks</b>													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army										DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604270A: Electronic Warfare Development					PROJECT L20: ATIRCM/CMWS			
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
SBIR/STTR	C	Nothing entered for Activity and Location. Location could not be determined.	0.414	5.118		0.000		0.000		0.000	Continuing	Continuing	0
Cost Category Item is empty.	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
ATIRCM QRC SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CIRCM Project Management	C	PD ASE HSV, AL	0.000	18.749		14.948		0.000		14.948	Continuing	Continuing	0
Cost Category Item is empty. - 2	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CMWS SUBPROGRAM	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
	C	PD ASE	123.498	0.000		0.000		0.000		0.000	Continuing	Continuing	0

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<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 0604270A: <i>Electronic Warfare Development</i>				<b>PROJECT</b> L20: <i>ATIRCM/CMWS</i>				
<b>Management Services (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
CMWS Project Management		HSV, AL											
<b>Subtotal</b>			123.912	23.867		14.948		0.000		14.948			0.000
<b>Remarks</b>													
			<b>Total Prior Years Cost</b>	<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			579.637	184.387		167.369		0.000		167.369			14.636
<b>Remarks</b>													

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2011 Army		<b>DATE:</b> February 2010
<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 0604270A: <i>Electronic Warfare Development</i>	<b>PROJECT</b> L20: <i>ATIRCM/CMWS</i>

	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Fielding to support ATIRCM QRC Assets (OCO)			#	#	#	#	#	#	#	#	#	#																
Start of Fielding to support OH-58 Platform (OCO)							#																					
Start of CMWS Fielding to support GEN 3 Assets (Base)									#																			
Hostile Fire Detection System (HFDS) MDD							#																					
HFDS TD Phase											#	#	#	#	#	#	#	#	#									
CIRCM TD Phase							#	#	#	#	#																	
CIRCM EMD Phase												#	#	#	#	#	#	#	#									

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Army			<b>DATE:</b> February 2010
<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 0604270A: <i>Electronic Warfare Development</i>	<b>PROJECT</b> L20: <i>ATIRCM/CMWS</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Fielding to support ATIRCM QRC Assets (OCO)	3	2009	4	2011
Start of Fielding to support OH-58 Platform (OCO)	3	2010	3	2010
Start of CMWS Fielding to support GEN 3 Assets (Base)	1	2011	1	2011
Hostile Fire Detection System (HFDS) MDD	3	2010	3	2010
HFDS TD Phase	3	2011	3	2013
CIRCM TD Phase	3	2010	3	2011
CIRCM EMD Phase	4	2011	3	2013

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