Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army

R-1 ITEM NOMENCLATURE

**DATE:** February 2012

**APPROPRIATION/BUDGET ACTIVITY** 2040: Research, Development, Test & Evaluation, Army

PE 0604823A: FIREFINDER

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	22.455	10.348	20.517	-	20.517	47.221	42.204	-	-	Continuing	Continuing
L86: LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)	5.836	6.968	3.176	-	3.176	-	-	-	-	Continuing	Continuing
L87: LONG RANGE COUNTERFIRE RADAR	-	-	-	-	-	-	-	-	-	Continuing	Continuing
L88: ENHANCED AN/TPQ 36	16.619	3.380	17.341	-	17.341	47.221	42.204	-	-	Continuing	Continuing

#### Note

FY 2013 funding supports EQ-36 and LCMR development efforts.

### A. Mission Description and Budget Item Justification

This Program funds design, development and test of primary target acquisition and counterfire radars to automatically detect, locate and classify hostile indirect fire weapons (mortars, artillery, and rockets). This PE directly supports the prioritization, tracking, and locating of targets, and dissemination of that information for simultaneous attack of multiple threats. It provides the Warfighter with continuous and responsive counterfire target acquisition systems for all types and phases of military operations. Project L86, Lightweight Counter Mortar Radar, Version AN/TPQ-50 provides 360 degree coverage and is used to detect, locate and report hostile locations of enemy indirect firing systems. Project L88, Enhanced AN/TPQ-36 (EQ-36), is a highly mobile radar system that will leverage the latest in technology design to accelerate technology infusion and increase range while improving False Alarm Rate, reducing obsolescence and increasing reliability. EQ-36 will provide 90 degree coverage and extended range, with an incremental development to increase detection capability to 360 degrees.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	24.736	10.358	30.977	-	30.977
Current President's Budget	22.455	10.348	20.517	-	20.517
Total Adjustments	-2.281	-0.010	-10.460	-	-10.460
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.737	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	-10.460	-	-10.460
Other Adjustments 2	-1.544	-0.010	-	-	-

PE 0604823A: FIREFINDER

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Exhibit R-2A, RDT&E Project Just	ification: PE	3 2013 Army							DATE: February 2012						
APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test BA 5: Development & Demonstration	& Evaluation	n, Army			IOMENCLAT BA: <i>FIREFIN</i>			PROJECT L86: LIGHT RADAR (LC		OUNTER MO	DRTAR				
COST (\$ in Millions)	FY 20					FY 2013 FY 2013 OCO Total FY 2014 FY 2015 FY 2016 FY 2017									
L86: LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)	5.836	6.968	3.176	-	3.176	-	-	-	-	Continuing	Continuing				
Quantity of RDT&E Articles	, ,														

## A. Mission Description and Budget Item Justification

The AN/TPQ-50 (formerly known as AN/TPQ-48(V)3) Lightweight Counter Mortar Radar (LCMR) is a digitally connected, day/night mortar, cannon, and rocket locating system. It is used to detect, locate, track, and report enemy indirect firing systems and also provides observed fires from friendly units. The AN/TPQ-50 is capable of being deployed in two configurations, standalone or vehicle mounted. It can be set up and operational in 20 minutes and disassembled in 10 minutes. AN/TPQ-50 will also be deployed as part of a System of Systems for the Counter-Rocket, Artillery, and Mortar (C-RAM) construct. It provides data to the Forward Area Air Defense Command and Control (FAADC2) node for the sense and warn force protection capability at fixed and semi-fixed sites. It provides 360 degrees of azimuth coverage and covers a range of 500 meters to 10 kilometers. The AN/TPQ-50 doubles the detection range and targeting accuracy of the existing AN/TPQ-48(V)2 Quick Reaction Capability (QRC) currently fielded in support of Operation Enduring Freedom (OEF) and other contingency operations, and also provides self-location which significantly improves force protection by reducing operator exposure to enemy fire.

FY 2013 Base funds support the integration of Common Front End (CFE) software as a Pre-Planned Product Improvement (P3I). CFE provides a common Graphics User Interface (GUI) to the warfighter that reduces operator training time and cost. CFE will make the GUI of the LCMR common with the GUI of the Enhanced AN/TPQ-36 (EQ-36), AN/TPQ-36, and AN/TPQ-37.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: AN/TPQ-50 Development  Articles:	3.281 0	4.110 0	-	-	-
Description: Funding is provided for the following effort					
FY 2011 Accomplishments:  Development of the AN/TPQ-50 Program of Record and the refurbishment of prototypes to include associated Program Management Office (PMO) costs					
FY 2012 Plans: Development of the AN/TPQ-50 Program of Record and the refurbishment of prototypes to include associated Program Management Office (PMO) costs					
Title: Test Support  Articles:	2.555 0	_	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604823A: FIREFINDER	L86: <i>LIGHT</i>	WEIGHT COUNTER MORTAR
BA 5: Development & Demonstration (SDD)		RADAR (LO	CMR)

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Description: Funding is provided for the following effort					
FY 2011 Accomplishments: Test activities to support Initial Operational Test & Evaluation (IOT&E) and associated PMO support costs.					
FY 2012 Plans: Development Testing, Initial Operational Test & Evaluation (IOT&E) and associated PMO support costs.					
Title: Common Front End (CFE)	-	-	3.176	-	3.176
Description: Funding is provided for the following effort					
FY 2013 Base Plans: Integration of CFE Software and associated PMO support costs.					
Accomplishments/Planned Programs Subtotals	5.836	6.968	3.176	-	3.176

# C. Other Program Funding Summary (\$ in Millions)

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	000	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	<b>Complete</b>	<b>Total Cost</b>
• B05201: SSN: B05201	9.631	87.910	72.594	27.646	100.240		60.305	50.937	51.819	Continuing	Continuing
Lightweight Counter Mortar Radar										_	

# **D. Acquisition Strategy**

The AN/TPQ-50 Lightweight Counter Mortar Radar (LCMR) is being developed to meet Training and Doctrine Command (TRADOC) Capabilities Production Document (CPD) requirements. Acquisition Strategy approval was originally obtained in May 2006. In September 2006, a sole source development contract was awarded to SRCTec, the developer and producer of the AN/TPQ-48(V)2 Quick Reaction Capability (QRC) LCMR. A Business Case Analysis (BCA) was completed in June 2010 which resulted in a Sole Source Acquisition Strategy decision for production. Government development testing (DT) and the Limited User Test (LUT) accomplished in FY 2010 identified limitations in the system that require re-work and additional testing in FY 2011 and FY 2012 to prepare for the Initial Operational Test and Evaluation (IOT&E) now scheduled for 3rd quarter FY 2012. FY 2013 Base funds support the integration of Common Front End (CFE) software as a Pre-Planned Product Improvement (P3I).

#### E. Performance Metrics

Army

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604823A: FIREFINDER

PROJECT

L86: LIGHTWEIGHT COUNTER MORTAR

**DATE:** February 2012

RADAR (LCMR)

Management Services	(\$ in Millio	ns)		FY 2	2012	FY 2 Ba	2013 Ise		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management (Contractor)	Various	Various:Various	3.348	-		0.112		-		0.112	0.000	3.460	3.460
Program Management	Various	PM Radars:Fort Monmouth NJ/ APG MD	0.911	-		0.112		-		0.112	0.000	1.023	1.023
Program Management (Government Matrix)	Various	Various:Various	1.155	-		0.113		-		0.113	0.000	1.268	1.268
		Subtotal	5.414	-		0.337		-		0.337	0.000	5.751	5.751

Product Development	(\$ in Millio	ns)		FY 2	012	FY 2 Ba			2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Common Front End (CFE) Software	Various	SRCTec, North:Syracuse, NY	-	-		2.839		-		2.839	0.000	2.839	2.839
Primary Hardware Development	Various	SRCTec, North:Syracuse, NY	40.978	4.110		-		-		-	0.000	45.088	45.088
Systems Engineering	SS/TBD	CERDEC:Fort Monmouth, NJ	2.964	-		-		-		-	0.000	2.964	2.964
Systems Engineering Contractor	SS/TBD	Various:Various	4.613	-		-		-		-	0.000	4.613	4.613
Radar Environmental Simulators (RES)	SS/TBD	Oakridge National Labs:Oakridge, TN	0.250	-		-		-		-	0.000	0.250	0.250
	•	Subtotal	48.805	4.110		2.839		-		2.839	0.000	55.754	55.754

Support (\$ in Millions)				FY 2	2012		2013 se	FY 2	2013 CO	FY 2013 Total			
Cost Category Item	relonment Support		Total Prior Years Cost	Award Cost Date		Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (Government)	Various	Various:Various	0.774	-		-		-		-	0.000	0.774	0.774
		Subtotal	0.774	-		-		-		-	0.000	0.774	0.774

PE 0604823A: FIREFINDER Army

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604823A: FIREFINDER

PROJECT

L86: LIGHTWEIGHT COUNTER MORTAR

3.176

0.000

73.587

**DATE:** February 2012

73.587

RADAR (LCMR)

Test and Evaluation (\$ i	t and Evaluation (\$ in Millions)  Contract			FY 2	012		2013 ise		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support (Contractor)	SS/TBD	SRCTec:Syracuse, NY	0.309	-		-		-		-	0.000	0.309	0.309
Limited User Test	Various	YUMA/WSMR:Arizona/ New Mexico	1.246	-		-		-		-	0.000	1.246	1.246
Follow-On Test Event (FOTE)	Various	YUMA/WSMR:Arizona/ New Mexico	0.690	-		-		-		-	0.000	0.690	0.690
Developmental Test Operational Test (DT/OT)	Various	Yuma/WSMR:Arizona/ New Mexico	3.663	0.565		-		-		-	0.000	4.228	4.228
Initial Operational Test & Evaluation	Various	YUMA/WSMR:Arizona/ New Mexico	-	2.293		-		-		-	0.000	2.293	2.293
Test Support (Government)	Various	Various:Various	2.542	-		-		-		-	0.000	2.542	2.542
		Subtotal	8.450	2.858		-		-		-	0.000	11.308	11.308
			Total Prior Years Cost	FY 2	012		2013 Ise		2013 CO	FY 2013 Total	Cost To	Total Cost	Target Value of Contract

3.176

Remarks

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**Project Cost Totals** 

63.443

6.968

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

PATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0604823A: FIREFINDER
L86: LIGHTWEIGHT COUNTER MORTAR
RADAR (LCMR)

		FY 2011			FY 2012		2				FY 2014				FY 2	2015	;		FY	201	6		FY	2017	,			
	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
First Unit Equipped (FUE) (AN/TPQ-50						,			·	,													,	,		·		-
Milestone C																												
Initial Operational Test & Evaluation (IOT&E)																												-
Full Rate Production (FRP) Decision																											-	•
Common Front End (CFE) Pre-Planned Product Improvement (P3I)													I															

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604823A: <i>FIREFINDER</i>	L86: LIGHT	WEIGHT COUNTER MORTAR
BA 5: Development & Demonstration (SDD)		RADAR (LC	CMR)

# Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
First Unit Equipped (FUE) (AN/TPQ-50	4	2011	4	2011	
Milestone C	2	2012	2	2012	
Initial Operational Test & Evaluation (IOT&E)	3	2012	3	2012	
Full Rate Production (FRP) Decision	2	2013	2	2013	
Common Front End (CFE) Pre-Planned Product Improvement (P3I)	2	2013	4	2013	

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EXHIBIT R-2A, RD1&E Project Just	tification: P	B 2013 Army	/						DATE: Feb	ruary 2012	
APPROPRIATION/BUDGET ACTIV		R-1 ITEM N	NOMENCLA.	TURE		PROJECT					
2040: Research, Development, Tes BA 5: Development & Demonstratio		n, Army		PE 060482	3A: <i>FIREFI</i> N	IDER		L87: LONG RANGE COUNTERFIRE F			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013	FY 2013	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Cost To	Total Cost

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
L87: LONG RANGE COUNTERFIRE RADAR	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

### **Note**

No work is being done under this Project. The FY11 funding will be reprogrammed to another project within this PE.

The FY13 RDTE OCO of \$14.600 million is an error. No OCO funds were requested for this project.

## A. Mission Description and Budget Item Justification

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No work is being done under this project. FY11 funding will be reprogrammed to another project within this Program Element (PE).

## B. Accomplishments/Planned Programs (\$ in Millions)

N/A

# C. Other Program Funding Summary (\$ in Millions)

N/A

# D. Acquisition Strategy

N/A

Army

#### 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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DATE: Calamiam, 2012

Exhibit R-2A, RDT&E Project Just	ification: PE	3 2013 Army	•					DATE: February 2012					
APPROPRIATION/BUDGET ACTIV	TTY			R-1 ITEM N	IOMENCLA <sup>T</sup>	TURE		PROJECT	PROJECT				
2040: Research, Development, Test	& Evaluation	n, Army		PE 060482	3A: <i>FIREFI</i> N	IDER		L88: ENHANCED AN/TPQ 36					
BA 5: Development & Demonstration (SDD)													
COST (¢ in Millions)	OOOT (A to MILLIONS)		FY 2013	FY 2013	FY 2013					Cost To			
COST (\$ in Millions)	FY 2011	FY 2012	Base	oco	Total	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost		
L88: ENHANCED AN/TPQ 36	16.619	3.380	17.341	-	17.341	47.221	42.204	-	-	Continuing	Continuing		
Quantity of RDT&E Articles													

## A. Mission Description and Budget Item Justification

The Enhanced AN/TPQ-36 (EQ-36) Counterfire Target Acquisition Radar System Capability Production Document (CPD) was approved on 29 September 2010. The EQ-36 System is a highly mobile radar set that automatically detects, classifies, tracks, and locates the point of origin of projectiles fired from mortar, artillery, and rocket systems with sufficient accuracy for first round fire for effect. It mitigates close combat radar coverage gaps and will ultimately replace the current AN/TPQ-36 and AN/TPQ-37 Firefinder Radars; fully supporting Brigade Combat Teams (BCTs) and Fires Brigades operations. The EQ-36 System will interoperate with future Battle Command Systems (BCSs) to provide the maneuver commander increased counterfire radar flexibility. The EQ-36 System will be capable of being deployed as part of the Indirect Fire Protection Capability (IFPC) System of Systems (SoS) to provide a sense and warn capability for fixed and semi-fixed sites. The EQ-36 System will provide a system with increased range and accuracy throughout a 90 degree search sector (stare mode) as well as 360 degree coverage (rotating) for locating mortar, artillery and rocket firing positions.

FY 2013 funds will initiate development and testing of the Pre-Planned Product Improvements (P3I) for High Clutter Environment and Low Quadrant Elevation efforts.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Supportability	10.815		-	-	-
Articles:  Description: Funding is provided for the following effort:	0				
FY 2011 Accomplishments: Supportability for Non-Recurring Engineering (NRE) systems, maintenance training and associated Program Management Office (PMO) Costs.					
Title: Test Support  Articles:	5.804 0	3.380 0	9.921	-	9.921
Description: Funding is provided for the following effort					
FY 2011 Accomplishments: Test activities to include Limited User Test (LUT)/Development Test (DT) and associated PMO support costs.  FY 2012 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604823A: FIREFINDER	PROJECT L88: ENHA	NCED AN/TPQ 36

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2013	FY 2013
	FY 2011	FY 2012	Base	oco	Total
Test activities to include Limited User Test (LUT)/Development Test (DT) and associated PMO support costs.					
FY 2013 Base Plans:					
Test activities to include Logistics/Maintenance Demo, Cold Regions Test Center (CRTC), Initial Operational Test and Evaluation (IOT&E), required ammunition and associated PMO support costs.					
Title: Low Quadrant Elevation (QE) Shots	-	-	1.790	-	1.790
Description: Funding is provided for the following effort					
FY 2013 Base Plans:					
Initiate efforts to develop algorithms to detect Low QE shots; this includes associated PMO support costs.					
Title: High Clutter Environment	-	-	5.630	-	5.630
Description: Funding is provided for the following effort					
FY 2013 Base Plans:					
Initiate development efforts to track projectiles through a high clutter environment; this includes associated PMO support costs.					
Accomplishments/Planned Programs Subtotals	16.619	3.380	17.341	-	17.341

# C. Other Program Funding Summary (\$ in Millions)

			FY 2013	FY 2013	FY 2013					Cost To	
<u>Line Item</u>	FY 2011	FY 2012	<b>Base</b>	OCO	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	<b>Total Cost</b>
Enhanced AN/TPQ-36: Enhanced	285.867	338.177	244.409	54.585	298.994		348.173	124.362	152.792	0.000	1,861.092
AN/TPQ-36											

# D. Acquisition Strategy

The Enhanced AN/TPQ-36 (EQ-36) leverages technology developed in the Multi-Mission Radar Advanced Technology Objective (ATO) program incorporating the latest antenna technology into the EQ-36. In order to field the EQ-36 capability to the Warfighter in the most expeditious manner with the least amount of risk, the EQ-36 will be produced in two increments based on two tiers of technical threshold requirements. Increment 1 capabilities are planned to be fielded as a replacement to the AN/TPQ-36 and AN/TPQ-37 radar systems. Increment 2 capabilities will provide increased performance over Increment 1 and will meet all of the user's threshold requirements. A contract was awarded in the fourth quarter of FY 2006 based on full and open competition. A Limited Procurement Milestone C approval was received in July 2008 which supported use of Overseas Contingency Operations (OCO) and Base budget funds to meet urgent operational requirements. An option for initial production units was exercised in July 08 in order to support an Operational Needs Statement (ONS). Additional systems were procured in FY 2010 to

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	PE 0604823A: <i>FIREFINDER</i>	L88: ENHANCED AN/TPQ 36
support additional theater requirements. Milestone C Update A as a result of the source selection process. The system will evinitiate development for Pre-Planned Product Improvements (P	entually replace all of the AN/TPQ-36 and AN/TF	PQ-37 legacy systems in the fleet. FY 2013 funding will
E. Performance Metrics  Performance metrics used in the preparation of this justification	n material may be found in the FY 2010 Army Pe	rformance Budget Justification Book, dated May 2010.

PE 0604823A: FIREFINDER

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604823A: *FIREFINDER* 

PROJECT

L88: ENHANCED AN/TPQ 36

**DATE:** February 2012

Management Services	(\$ in Millio	ns)		FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management (Contractor)	TBD	Various:Various	3.482	-		0.301		-		0.301	Continuing	Continuing	Continuing
Program Management (Government)	TBD	Various:Various	0.702	0.272		0.279		-		0.279	Continuing	Continuing	Continuing
Program Management	TBD	PM RADARS:Aberdeen Proving Ground, MD	2.633	-		-		-		-	0.000	2.633	2.633
		Subtotal	6.817	0.272		0.580		-		0.580			

<b>Product Development (</b>	duct Development (\$ in Millions)  Contract Total Pri					FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development, Ancillary Equipment, and Radar Environmental Simulators (RES)	SS/FP	Lockheed Martin:Syracuse, NY	176.660	-		-		-		-	0.000	176.660	176.660
Non-Recurring Engineering (NRE) Supportability	SS/CPFF	Lockheed Martin:Syracuse, NY	4.485	-		-		-		-	0.000	4.485	4.485
Non-Recurring Engineering (NRE)Supportability	SS/CPFF	Lockheed Martin:Syracuse, NY	1.682	-		-		-		-	0.000	1.682	1.682
Low Quadrant Elevation (QE) Shots	SS/FP	TBD:TBD	-	-		1.500		-		1.500	Continuing	Continuing	Continuing
Maintenance Training	SS/CPFF	Lockheed Martin:Syracuse, NY	2.222	-		-		-		-	0.000	2.222	2.222
High Clutter Environment	SS/FP	TBD:TBD	-	-		5.340		-		5.340	Continuing	Continuing	Continuing
Systems Engineering (Contractor)	Various	Various:Various	5.531	-		-		-		-	0.000	5.531	5.531
Systems Engineering (Government)	Various	Various:Various	1.997	-		-		-		-	0.000	1.997	1.997
	•	Subtotal	192.577	-		6.840		-		6.840			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604823A: FIREFINDER

PROJECT

L88: ENHANCED AN/TPQ 36

**DATE:** February 2012

Support (\$ in Millions)	Contract			FY 2	2012		2013 se		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (Government)	Various	Various:various	4.334	-		-		-		-	0.000	4.334	4.334
Development Support (Contractor)	Various	Various:various	2.111	-		-		-		-	0.000	2.111	2.111
		Subtotal	6.445	-		-		-		-	0.000	6.445	6.445

Test and Evaluation (\$ i	in Millions	)		FY 2	FY 2012		2013 se		2013 CO	FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	YUMA/WSMR:Arizona, NM	17.228	3.108		9.921		-		9.921	Continuing	Continuing	Continuing
		Subtotal	17.228	3.108		9.921		-		9.921			

_											
	Total Prior										Target
	Years			FY	2013	FY:	2013	FY 2013	Cost To		Value of
	Cost	FY 2	2012	Ba	ise	0	CO	Total	Complete	Total Cost	Contract
Project Cost Totals	223.067	3.380		17.341		_		17.341			

Remarks

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R-1 Line #119

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

PATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0604823A: FIREFINDER
L88: ENHANCED AN/TPQ 36

	FY 2011		2011 FY 2012					FY 2013			FY 2014			FY 2015				FY 2016				FY 2017			7				
	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
Limited User Test (LUT)				,									,	,		,	•	,		·				,		·			
Milestone C Update																													
Competitive Production Efforts																													
Conduct Initial Operational Test and Evaluation (IOT&E)																													
Low Quadrant Elevation (QE) Shots																													
High Clutter Environment																													_
Future Radar Development Efforts																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

DATE: February 2012

R-1 ITEM NOMENCLATURE
PE 0604823A: FIREFINDER
L88: ENHANCED AN/TPQ 36

# Schedule Details

	St	E	nd	
Events	Quarter	Year	Quarter	Year
Limited User Test (LUT)	3	2012	4	2012
Milestone C Update	2	2012	2	2012
Competitive Production Efforts	2	2012	4	2017
Conduct Initial Operational Test and Evaluation (IOT&E)	4	2013	1	2014
Low Quadrant Elevation (QE) Shots	1	2013	4	2015
High Clutter Environment	1	2013	4	2014
Future Radar Development Efforts	1	2014	4	2015