

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>
--	--

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	12.032	20.517	47.221	-	47.221	42.204	0.000	0.000	0.000	Continuing	Continuing
L86: <i>LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)</i>	-	6.752	3.176	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
L88: <i>Enhanced AN/TPQ 36</i>	-	5.280	17.341	47.221	-	47.221	42.204	0.000	0.000	0.000	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

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, AN/TPQ-53 (formerly known as Enhanced AN/TPQ-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. The AN/TPQ-53 will provide 90 degree coverage and extended range, with an incremental development to increase detection capability to 360 degrees.

FY14 Base funding supports AN/TPQ-53 P3I development efforts to include performing technical assessments, concept studies, cost reduction, risk reduction and required documentation.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014 Base</u>	<u>FY 2014 OCO</u>	<u>FY 2014 Total</u>
Previous President's Budget	10.348	20.517	47.221	-	47.221
Current President's Budget	12.032	20.517	47.221	-	47.221
Total Adjustments	1.684	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.684	-			
• SBIR/STTR Transfer	-	-			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					PE 0604823A: FIREFINDER				L86: LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
L86: LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)	-	6.752	3.176	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles												

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

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 provides the ability to observe friendly fire 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 be deployed as part of a System of Systems for the Counter-Rocket, Artillery, and Mortar (C-RAM) construct or Rocket Artillery Mortar (RAM) Warn. 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. AN/TPQ-50 Quick Reaction Capability systems are currently fielded and deployed to Operation Enduring Freedom. This program has no FY14 Base or Overseas Contingency Operations (OCO) request.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2012	FY 2013	FY 2014
Title: AN/TPQ-50 Development Articles: Description: Funding is provided for the following effort FY 2012 Accomplishments: Development of the AN/TPQ-50 Program of Record and the refurbishment of prototypes to include associated Program Management Office (PMO) costs	4.110 0	0.000	0.000
Title: Test Support Articles: Description: Funding is provided for the following effort FY 2012 Accomplishments: Development Testing, Initial Operational Test & Evaluation (IOT&E) and associated PMO support costs.	2.642 0	0.000	0.000
Title: Common Front End (CFE) Articles:	0.000	3.176 0	0.000

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army								DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>				PROJECT L86: <i>LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2012	FY 2013	FY 2014	
Description: Funding is provided for the following effort											
FY 2013 Plans: Integration of CFE Software and associated Program Management Office (PMO) support costs.											
Accomplishments/Planned Programs Subtotals								6.752	3.176	0.000	
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• B05201: SSN: <i>B05201</i> <i>Lightweight Counter Mortar Radar</i>	87.910	100.240	40.735		40.735	45.229	44.500	39.881	40.690	Continuing	Continuing
Remarks											
D. Acquisition Strategy The AN/TPQ-50 Lightweight Counter Mortar Radar is post Milestone C and was developed to meet Training and Doctrine Command (TRADOC) Capabilities Production Document (CPD) requirements. 78 Quick Reaction Capability (QRC) and 45 Low Rate Initial Production (LRIP) systems have been procured towards an Army Acquisition Objective (AAO) of 400. Initial Operational Test and Evaluation (IOT&E) was conducted in 3QFY12. A Full Rate Production (FRP) decision is scheduled in 3QFY13 followed by a three year sole source production contract award. The production contract will include upgrading the 78 QRC and 45 LRIP systems to the full rate production specification beginning in FY15. A second three year production contract is scheduled for 2QFY16. Follow on production contracts will be awarded as needed to fulfill the AAO.											
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.											

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>						R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>						PROJECT L86: <i>LIGHTWEIGHT COUNTER MORTAR</i> RADAR (LCMR)			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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		-		-		-	0.000	3.460	3.460
Program Management	Various	PM Radars:Fort Monmouth NJ/ APG MD	0.911	-		0.112		-		-		-	0.000	1.023	1.023
Program Management (Government Matrix)	Various	Various:Various	1.155	-		0.113		-		-		-	0.000	1.268	1.268
Subtotal			5.414	0.000		0.337		0.000		0.000		0.000	0.000	5.751	5.751
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	0.000	-		2.839		-		-		-	0.000	2.839	2.839
Primary Hardware Development	SS/TBD	SRCTec, North:Syracuse, NY	40.978	4.110	Dec 2011	-		-		-		-	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		0.000		0.000		0.000	0.000	55.754	55.754
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	0.774	-		-		-		-		-	0.000	0.774	0.774

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>							R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>				PROJECT L86: <i>LIGHTWEIGHT COUNTER MORTAR RADAR (LCMR)</i>				
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.774	0.000		0.000		0.000		0.000		0.000	0.000	0.774	0.774
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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/ATEC:Arizona/APG	3.663	0.565	Feb 2012	-		-		-		-	0.000	4.228	4.228
Initial Operational Test & Evaluation	Various	YUMA/FT SILL:Arizona/ Oklahoma	0.000	2.077	Feb 2012	-		-		-		-	0.000	2.077	2.293
Test Support (Government)	Various	Various:Various	2.542	-		-		-		-		-	0.000	2.542	2.542
Subtotal			8.450	2.642		0.000		0.000		0.000		0.000	0.000	11.092	11.308
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			63.443	6.752		3.176		0.000		0.000		0.000	0.000	73.371	73.587
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army			DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>			R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>		
			PROJECT L86: <i>LIGHTWEIGHT COUNTER MORTAR</i> RADAR (LCMR)		

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
Milestone C																												
Initial Operational Test & Evaluation (IOT&E)																												
Full Rate Production (FRP) Decision																												
Common Front End (CFE) Pre-Planned Product Improvement (P3I)																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>	PROJECT L86: <i>LIGHTWEIGHT COUNTER MORTAR</i> RADAR (LCMR)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone C	2	2012	2	2012
Initial Operational Test & Evaluation (IOT&E)	3	2012	3	2012
Full Rate Production (FRP) Decision	3	2013	3	2013
Common Front End (CFE) Pre-Planned Product Improvement (P3I)	2	2013	4	2013

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604823A: FIREFINDER				PROJECT L88: Enhanced AN/TPQ 36			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
L88: Enhanced AN/TPQ 36	-	5.280	17.341	47.221	-	47.221	42.204	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The AN/TPQ-53 (formerly known as the Enhanced AN/TPQ-36) Counterfire Target Acquisition Radar System Capability Production Document (CPD) was approved on 29 September 2010. The AN/TPQ-53 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 AN/TPQ-53 System interoperates with Battle Command Systems (BCSs) to provide the maneuver commander increased counterfire radar flexibility. The AN/TPQ-53 System is 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 AN/TPQ-53 provides 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 2014 funds of \$47.221M will continue development and testing of Pre-Planned Product Improvement (P3I) for High Clutter Environment and Low Quadrant Elevation efforts as well as initiate development and testing for increased Range and Accuracy and Worldwide Interoperability for Microwave Access (WIMAX) to include performing technical assessments, concept studies, cost reduction, risk reduction and required documentation.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Test Support									5.280	9.921	8.210	
									Articles: 0	0		
Description: Funding is provided for the following effort												
FY 2012 Accomplishments:												
Test activities to include Limited User Test (LUT)/Development Test (DT) and associated Program Management Office (PMO) support costs.												
FY 2013 Plans:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604823A: FIREFINDER	PROJECT L88: Enhanced AN/TPQ 36		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Test activities to include Logistics/Maintenance Demo, Cold Regions Test Center (CRTC), Initial Operational Test and Evaluation (IOT&E), operational Capabilities and Limitations (C&Ls) tests, software and hardware Independent Verification and Validation (IV&V), ammunition, PMO and test support costs. FY 2014 Plans: Test activities to include operational C&Ls, software and hardware IV&V, ammunition, PMO and test support costs.				
Title: Low Quadrant Elevation (QE) Shots Description: Funding is provided for the following effort FY 2013 Plans: Initiate efforts to develop algorithms to detect Low QE shots; this includes associated Program Management Office (PMO) support costs. FY 2014 Plans: Continue efforts to develop algorithms to detect Low QE shots; this includes associated PMO support costs.		Articles: 0.000	1.790 0	4.970
Title: High Clutter Environment Description: Funding is provided for the following effort FY 2013 Plans: Initiate development efforts to track projectiles through a high clutter environment; this includes associated PMO support costs. FY 2014 Plans: Continue development efforts to track projectiles through a high clutter environment; this includes associated PMO support costs.		Articles: 0.000	5.630 0	7.029
Title: Increased Range and Accuracy and Worldwide Interoperability for Microwave Access (WIMAX) Description: Funding provided for the following effort FY 2014 Plans: Initiate development efforts to improve Radar performance versus long range threats, improve accuracy, and allow radars to operate within the WIMAX infrastructure; this includes associated PMO support costs.		0.000	0.000	27.012
Accomplishments/Planned Programs Subtotals		5.280	17.341	47.221

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604823A: FIREFINDER	PROJECT L88: Enhanced AN/TPQ 36	

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

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• AN/TPQ-53: AN/TPQ-53	338.177	298.994	312.727		312.727	348.173	279.351	280.068	22.500	0.000	1,879.990

Remarks

D. Acquisition Strategy

The AN/TPQ-53 leverages technology developed in the Multi-Mission Radar Advanced Technology Objective (ATO) program incorporating the latest antenna technology into the AN/TPQ-53. A contract for initial production (IP) systems was awarded in 2008 based on full and open competition, and a competitive production contract for Low Rate Initial Production (LRIP) systems was awarded in 2012 with an option for additional systems in 2013. Production and delivery of all IP systems are complete, and production of LRIP systems is ongoing. A Full Rate Production (FRP) contract to fill the remainder of the Army Acquisition Objective (AAO) is expected to be awarded in FY 2014 following completion of the Initial Operating Test. Additionally, all initial production systems will be retrofit to FRP configuration between FY2014 and FY 2016. The FRP system deliveries will continue through FY 2019. The system will eventually replace all of the AN/TPQ-36 and AN/TPQ-37 systems in the fleet.

FY 2014 funds will continue development and testing of pre-planned product improvement (P3I) for high-clutter environment and low quadrant elevation efforts as well as initiate development and testing for increased range and accuracy and Worldwide Interoperability for Microwave Access (WIMAX) to include performing technical assessments, concept studies, cost reduction, risk reduction and required documentation.

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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>						R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>						PROJECT L88: <i>Enhanced AN/TPQ 36</i>			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	Mar 2013	0.622	Mar 2014	-		0.622	Continuing	Continuing	Continuing
Program Management (Government)	TBD	Various:Various	0.702	0.272	Mar 2012	0.279	Mar 2013	0.551	Mar 2014	-		0.551	Continuing	Continuing	Continuing
Subtotal			4.184	0.272		0.580		1.173		0.000		1.173			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Maintenance Training	SS/CPFF	Lockheed Martin:Syracuse, NY	3.210	-		-		-		-		-	0.000	3.210	3.210
High Clutter Environment	SS/FP	Lockheed Martin:Syracuse, NY	0.000	-		5.340	Mar 2013	6.854	Mar 2014	-		6.854	Continuing	Continuing	Continuing
Low Quadrant Elevation (QE) Shots	SS/FP	Lockheed Martin:Syracuse, NY	0.000	-		1.500	Mar 2013	4.840	Mar 2014	-		4.840	Continuing	Continuing	Continuing
Increased Range and Accuracy and Worldwide Interoperability for Microwave Access (WIMAX)	SS/FP	Lockheed Martin:Syracuse, NY	0.000	-		-		26.344	Mar 2014	-		26.344	Continuing	Continuing	Continuing
Subtotal			3.210	0.000		6.840		38.038		0.000		38.038			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Various:Various	17.228	5.008	Jun 2012	9.921	Mar 2013	8.010	Mar 2014	-		8.010	Continuing	Continuing	Continuing
Subtotal			17.228	5.008		9.921		8.010		0.000		8.010			

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army											DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604823A: FIREFINDER					PROJECT L88: Enhanced AN/TPQ 36				
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	24.622	5.280		17.341		47.221		0.000		47.221				

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army			DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>			R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>		
			PROJECT L88: <i>Enhanced AN/TPQ 36</i>		

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
Developmental Test (DT)																												
Limited User Test (LUT)																												
Milestone C Update																												
Low Rate Initial Production (LRIP) Lot 1 Production Contract Award																												
LRIP Lot 2 Production Contract Award																												
LRIP Lot 3 Production Contract Award																												
Full Rate Production (FRP) Decision																												
FRP Contract Award																												
Initial Operational Test and Evaluation (IOT&E)																												
High Clutter Environment																												
Low Quadrant Elevation (QE) Shots																												
Increased Range and Accuracy and WIMAX																												
Spectrum Management Jamming / Blue Force EMI Mitigation Techniques																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604823A: <i>FIREFINDER</i>	PROJECT L88: <i>Enhanced AN/TPQ 36</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Developmental Test (DT)	2	2012	4	2013
Limited User Test (LUT)	4	2012	1	2013
Milestone C Update	2	2012	2	2012
Low Rate Initial Production (LRIP) Lot 1 Production Contract Award	2	2012	2	2012
LRIP Lot 2 Production Contract Award	2	2012	2	2012
LRIP Lot 3 Production Contract Award	3	2013	3	2013
Full Rate Production (FRP) Decision	3	2014	3	2014
FRP Contract Award	3	2014	3	2014
Initial Operational Test and Evaluation (IOT&E)	4	2013	1	2014
High Clutter Environment	1	2013	4	2014
Low Quadrant Elevation (QE) Shots	1	2013	4	2015
Increased Range and Accuracy and WIMAX	1	2014	4	2015
Spectrum Management Jamming / Blue Force EMI Mitigation Techniques	1	2015	4	2015