Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army PE 0604814A: Artillery Munitions - EMD

BA 5: System Development & Demonstration (SDD)

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	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	-	45.821	4.346	8.209	-	8.209	0.000	0.000	0.000	0.000	Continuing (	Continuing
708: XM982 PROJECTILE	-	45.821	4.346	8.209	-	8.209	0.000	0.000	0.000	0.000	Continuing (	Continuing

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

#### Note

FY 2014: Base RDTE funds were increased by \$5.882 million to support the completion of Initial Operational Test and Evaluation.

### A. Mission Description and Budget Item Justification

Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. Additionally it provides improved fire support capability due to its increased range of 37.5 kilometers and demonstrated accuracy of < 4 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155) and the M109A6 Paladin Howitzer and Sweden's Archer howitzer. Excalibur provides a 33% range increase over current Rocket Assisted Projectiles, with a < 10 meter accuracy circular error probable at all ranges. Excalibur is also highly resistant to Global Positioning System (GPS) jamming. Excalibur is an international program, teamed with the Kingdom of Sweden (KoS), who contributes resources towards the development and have procured rounds in accordance with an established Project Agreement for use in their Archer howitzer.

Excalibur Increments Ia-1 and Ia-2 are currently fielded and in use by units throughout Afghanistan and deployed globally to support other Military Contingency Operations. The final increment of development funding is required in fiscal year 2014 in order to complete the Ib development tasks and execute the Ib Operational Test and Evaluation in accordance with the Test and Evaluation Master Plan. Operational testing will be conducted to obtain data for evaluation of the operational effectiveness of the Increment Ib projectile when used by a typical M109A6 or M777A2 firing battery to attack Excalibur targets. The test will provide data upon which to base an assessment of the ability of a typical artillery unit to employ Excalibur in accordance with doctrine, and in a timely manner, using the fire support system (target acquisition, fire direction and cannon systems), as well as projectile effects on target. Aspects of operational suitability (reliability, logistics supportability and MANPRINT) will also be evaluated on the basis of data from this test. Fiscal year 2014 funding supports the execution of this test event, including test range costs, instrumentation, and government support. This operational test will be executed concurrently with the Precision Guidance Kit (PGK) IOT&E. The test concept will exercise the entire fire support chain. The fiscal year 2014 funding will also fund the Excalibur Ib durability (20 year shelf life) test in order to obtain full material release and type classification standard of the increment Ib.

The program was certified by the Defense Acquisition Executive (DAE) on January 10, 2011. The Excalibur requirement was again validated during a July 2012 Headquarters Department of the Army Configuration Steering Board (CSB).

PE 0604814A: Artillery Munitions - EMD

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

PE 0604814A: Artillery Munitions - EMD

Increment Ib completed a successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	<b>FY 2014 Base</b>	FY 2014 OCO	FY 2014 Total
Previous President's Budget	37.592	4.346	2.327	-	2.327
Current President's Budget	45.821	4.346	8.209	-	8.209
Total Adjustments	8.229	0.000	5.882	-	5.882
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	_			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	_			
<ul> <li>Reprogrammings</li> </ul>	9.400	_			
SBIR/STTR Transfer	-1.206	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	0.035	_	5.882	-	5.882

APPROPRIATION/BUDGET ACTIVITY
2040: Research, Development, Test & Evaluation, Army
BA 5: System Development & Demonstration (SDD)

All Prior Years FY 2012 FY 2013\*

R-1 ITEM NOMENCLATURE
PE 0604814A: Artillery Munitions - EMD
PROJECT
708: XM982 PROJECTILE

Cost To Cost

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
708: XM982 PROJECTILE	-	45.821	4.346	8.209	-	8.209	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles												

<sup>&</sup>lt;sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## A. Mission Description and Budget Item Justification

Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. Additionally it provides improved fire support capability due to its increased range of 37.5 kilometers and demonstrated accuracy of < 4 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155) and the M109A6 Paladin Howitzer and Sweden's Archer howitzer. Excalibur provides a 33% range increase over current Rocket Assisted Projectiles, with a < 10 meter accuracy circular error probable at all ranges. Excalibur is also highly resistant to Global Positioning System (GPS) jamming. Excalibur is an international program, teamed with the Kingdom of Sweden (KoS), who contributes resources towards the development and have procured rounds in accordance with an established Project Agreement for use in their Archer howitzer.

Excalibur Increments Ia-1 and Ia-2 are currently fielded and in use by units throughout Afghanistan and deployed globally to support other Military Contingency Operations. The final increment of development funding is required in fiscal year 2014 in order to complete the Ib development tasks and execute the Ib Operational Test and Evaluation in accordance with the Test and Evaluation Master Plan. Operational testing will be conducted to obtain data for evaluation of the operational effectiveness of the Increment Ib projectile when used by a typical M109A6 or M777A2 firing battery to attack Excalibur targets. The test will provide data upon which to base an assessment of the ability of a typical artillery unit to employ Excalibur in accordance with doctrine, and in a timely manner, using the fire support system (target acquisition, fire direction and cannon systems), as well as projectile effects on target. Aspects of operational suitability (reliability, logistics supportability and MANPRINT) will also be evaluated on the basis of data from this test. Fiscal year 2014 funding supports the execution of this test event, including test range costs, instrumentation, and government support. This operational test will be executed concurrently with the Precision Guidance Kit (PGK) IOT&E. The test concept will exercise the entire fire support chain. The fiscal year 2014 funding will also fund the Excalibur Ib durability (20 year shelf life) test in order to obtain full material release and type classification standard of the increment Ib.

The program was certified by the Defense Acquisition Executive (DAE) on January 10, 2011. The Excalibur requirement was again validated during a July 2012 Headquarters Department of the Army Configuration Steering Board (CSB).

Increment Ib completed a successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012.

PE 0604814A: Artillery Munitions - EMD

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013				
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604814A: Artillery Munitions - EMD		BOJECT B: XM982 PROJECTILE					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quanti	<u>ities in Each)</u>		FY 2012	FY 2013	FY 2014			
Title: Advanced Field Artillery Tactical Data Systems (AFATDS)	A	rticles:	1.403 0	0.000	0.000			
<b>Description:</b> Engineering support for Excalibur integration into Advanced digital howitzer integration.	d Field Artillery Tactical Data Systems (AFATDS), a	and						
FY 2012 Accomplishments: Advanced Field Artillery Tactical Data Systems (AFATDS)								
Title: Increment Ib development effort.	A	rticles:	40.152 0	3.300	2.920			
Description: Increment Ib development effort.								
FY 2012 Accomplishments:  Continuation of Increment Ib development effort, complete detailed desig developmental testing and qualification testing to support transition into p	• •							
FY 2013 Plans:  Continuation of Increment Ib follow-on Artillery development effort, compl and transition into production efforts for Increment Ib.	letion of qualification testing to prepare for IOT&E t	esting						
FY 2014 Plans: Implementation of reliability growth effort and completion of the IOT&E ar	nd final transition into production for Increment lb.							
Title: Support and conduct developmental and qualification testing for Inc		rticles:	1.795 0	0.000	0.000			
<b>Description:</b> Support and conduct developmental and qualification testing	ng for Increment lb.							
FY 2012 Accomplishments: Support and conduct developmental and qualification testing for Increme	nt lb.							
<b>Title:</b> Integrated Developmental Testing/Operational Testing (DT/OT), Salncrement lb.		nt for	2.471 0	1.046 0	5.289			
<b>Description:</b> Conduct Integrated Developmental Testing/Operational Testingseries assessment to support Low Rate Initial Production (LRIP) for Increment I	sting (DT/OT) , Safety/Reliability testing, and opera							

PE 0604814A: Artillery Munitions - EMD

UNCLASSIFIED
Page 4 of 13

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	PE 0604814A: Artillery Munitions - EMD	708: XM982 PROJECTILE
BA 5: System Development & Demonstration (SDD)		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Conduct Integrated Developmental Testing (DT), initial safety and reliability testing for supporting Increment Ib, and to complete developmental testing.			
FY 2013 Plans: To conduct operational testing, safety and reliability testing, initial operational test and evaluation and operational assessment to support LRIP for Increment Ib.			
FY 2014 Plans: To complete operational testing, initial operational test and evaluation, and operational assessment to support full material release for Increment lb.			
Accomplishments/Planned Programs Subtotals	45.821	4.346	8.209

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

			FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	<u>Base</u>	<u>000</u>	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	<b>Complete</b>	Total Cost
Procurement Ammo:	58.074	122.629	67.896		67.896					0.000	248.599

Procurement Ammunition Army: Proj 155mm Extended Range: XM982-U Excalibur: E80103

Remarks

Army

### D. Acquisition Strategy

Excalibur is a family of Precision Guided Extended Range Munitions. In 1997, a competitive Engineering and Manufacturing Development (EMD) contract was awarded for the initial increment, with options for Low Rate Initial Production (LRIP) quantities. In coordination with the Army Acquisition Executive, the Army implemented an incremental development approach that provided for an early fielding capability in FY 2007 in response to an Urgent Needs Statement in support of Operation Iraqi Freedom (as of September 2010 re-named to Operation New Dawn) and Operation Enduring Freedom. Increment Ib was solicited as a full and open competition and awarded to two contractors in September 2008. Following the Increment Ib strategy, the Army conducted a demonstration phase followed by a shoot off between the two competing contractors and down selected to a single contractor for qualification and production. The shoot off was completed in July 2010 followed by the downselect decision on 25 August 2010 to support Phase II development and qualification. Increment Ib completed successful Milestone C Decision Review on December 12, 2012. The first Low Rate Initial Production contract was awarded on December 21, 2012. The contractor is currently testing/implementing reliability growth initiatives to further improve the overall reliability of the Increment Ib rounds. The Army will conduct an Initial Operational Test and Evaluation in fiscal year 2014 and will then pursue a Full Materiel Release and Full Rate Production Decision.

PE 0604814A: Artillery Munitions - EMD

UNCLASSIFIED
Page 5 of 13

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 0604814A: Artillery Munitions - EMD	PROJECT 708: XM982 PROJECTILE
2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)  E. Performance Metrics  Performance metrics used in the preparation of this justification material m	·	

PE 0604814A: Artillery Munitions - EMD

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

R-1 ITEM NOMENCLATURE

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604814A: Artillery Munitions - EMD

708: XM982 PROJECTILE

**PROJECT** 

Product Developmen	ıt (\$ in M	illions)		FY 2	2012	FY 2	2013		2014 ise		2014 CO	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	Total Cost	Target Value of Contract
Misc Support Contracts	Various	Various:Various	3.645	-		-		-		-		-	0.000	3.645	3.645
Platform Integration/Fire Control - AFATDS	SS/CPIF	Raytheon AFATDS:Fort Wayne, IN	5.317	0.590	Jun 2012	-		-		-		-	0.000	5.907	5.907
Govt Support for Paladin, LW155 Integration SW Development	MIPR	ARDEC, Software Engineering:Picatinny, NJ	6.775	0.813	Jun 2012	-		-		-		-	0.000	7.588	7.588
Increment lb Development Phase 2	C/CPIF	Raytheon Missile System:Tucson, AZ	40.339	37.089	Jul 2012	-		-		-		-	0.000	77.428	77.428
Increment 1b Development Phase 1	C/FFP	Alliant Techsystems:Pymouth MN	n, 30.773	-		-		-		-		-	0.000	30.773	30.773
Increment 1b Development Phase 1	C/FFP	Raytheon Missile System:Tucson, AZ	30.413	-		-		-		-		-	0.000	30.413	30.413
Platform Integration & EPIAFS Software Development	MIPR	Navy, Surface Warfare Center:MD	0.230	-		-		-		-		-	0.000	0.230	0.230
Follow on Precision Artillery risk reduction	C/CPFF	ARDEC:Picatinny, NJ	5.049	-		-		-		-		-	0.000	5.049	5.049
Platform Integration- Systems Contractor	MIPR	ARES:Annapolis, MD	0.840	-		-		-		-		-	0.000	0.840	0.840
TCM Merger Assessment	SS/FP	Bofors Defence, Karlskoga:Sweden	14.430	-		-		-		-		-	0.000	14.430	14.430
Fee on Excalibur Development Contract	C/CPIF	Raytheon Missile System:Tucson, AZ	35.377	-		-		-		-		-	0.000	35.377	35.377
Platform Integration LW155 M777A2	C/CPIF	BAE:Burlington, VT	11.989	-		-		-		-		-	0.000	11.989	11.989
ARDEC fuze technology maturation (DOTC)	SS/FP	ARDEC:Picatinny, NJ	3.872	-		-		-		-		-	0.000	3.872	3.872
SS-SFM Test Projectiles	C/FFP	Various:Varoius	10.815	-		-		-		-		-	0.000	10.815	10.815
Advanced Cargo Projectile Technology	MIPR	DMEA, McClellan:CA	2.390	-		-		-		-		-	0.000	2.390	2.390

PE 0604814A: Artillery Munitions - EMD

**UNCLASSIFIED** Page 7 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

R-1 ITEM NOMENCLATURE

PROJECT

APPROPRIATION/BUDGET ACTIVITY

PE 0604814A: Artillery Munitions - EMD

708: XM982 PROJECTILE

DATE: April 2013

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

Product Developmer	Product Development (\$ in Millions)				2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2	2014 CO	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
Platform Integration Firing Tables Development	MIPR	ARDEC, Firing Tables Branch Picatinny, NJ and:Aberdeen, MD	2.124	0.275	Jun 2012	-		-		-		-	0.000	2.399	2.399
Excalibur Increment Ia Development	C/CPIF	Raytheon Missile System:Tucson, AZ	428.187	-		-		-		-		-	0.000	428.187	428.187
		Subtotal	632.565	38.767		0.000		0.000		0.000		0.000	0.000	671.332	671.332

Support (\$ in Millions	s)			FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise		2014 CO	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	РО	PM Excalibur:Picatinny, NJ	27.082	0.689	Jan 2012	0.300	Nov 2012	0.400	Oct 2013	-		0.400	0.000	28.471	28.471
Government Support- Excalibur XM982	MIPR	ARDEC:Picatinny, NJ	61.249	2.169	Dec 2011	3.000	Oct 2012	2.500	Oct 2013	-		2.500	0.000	68.918	68.918
Goverment Support- Ft Sill	MIPR	Ft. Sill:OK	3.534	-		-		0.020	Oct 2013	-		0.020	0.000	3.554	3.554
Milestone Support	C/FP	Camber:Alexandria, VA	1.701	0.091	Jun 2012	-		-		-		-	0.000	1.792	1.792
Miscellaneous Support	Various	Various:Various	4.061	0.114	Oct 2011	-		-		-		-	0.000	4.175	4.175
Engineering Services Contract for Increment 1a-2	SS/CPFF	Raytheon Missile Systems:Tucson, AZ	0.085	-		-		-		-		-	0.000	0.085	0.085
Paladin Platform Integration	MIPR	PM Paladin:Picatinny, NJ	0.930	-		-		-		-		-	0.000	0.930	0.930
Government Support - SS- SFM	MIPR	ARDEC:Picatinny, NJ	1.625	-		-		-		-		-	0.000	1.625	1.625
Technical Spt Contract for Platform Integration	C/FP	Camber:Dallas, TX	0.821	-		-		-		-		-	0.000	0.821	0.821
Fire Control development support	MIPR	Fort Monmouth, NJ and:Fort Sill, OK	1.008	-		-		-		-		-	0.000	1.008	1.008

PE 0604814A: *Artillery Munitions - EMD* Army

UNCLASSIFIED
Page 8 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0604814A: Artillery Munitions - EMD

**DATE:** April 2013

708: XM982 PROJECTILE

Support (\$ in Millions	s)			FY 2	2012	FY 2	013		2014 ise		2014 CO	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
Platform Integration Software Support	MIPR	Navy Surface Warfare Center:MD	0.390	-		-		-		-		-	0.000	0.390	0.390
Government TCM Support	MIPR	ARDEC:Picatinny, NJ	0.910	-		-		-		-		-	0.000	0.910	0.910
Government Support- Advanced Cargo Projectile Technology	MIPR	ARDEC:Picatinny,	0.353	-		-		-		-		-	0.000	0.353	0.353
Government Support Platform Integration	MIPR	ARDEC:Picatinny,	6.241	-		-		-		-		-	0.000	6.241	6.24
PM CAS SS-SFM	PO	PM CAS:Picatinny, NJ	0.700	-		-		-		-		-	0.000	0.700	0.700
Increment la Engineering Services	MIPR	DMEA:McClellan, CA	5.078	-		-		-		-		-	0.000	5.078	5.078
Increment la Engineering Services	C/CPFF	DRS:Eatontown, NJ	12.850	-		-		-		-		-	0.000	12.850	12.850
Modeling and Structural Development	MIPR	Army Research Labs:Adelphi, MD	9.034	-		-		-		-		-	0.000	9.034	9.034
Government Engineering Support for Precision Artillery Risk Reduction	MIPR	ARDEC:Picatinny,	2.750	-		-		-		-		-	0.000	2.750	2.750
		Subtotal	140.402	3.063		3.300		2.920		0.000		2.920	0.000	149.685	149.685

Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2	2014 CO	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
TECOM Test Range	MIPR	Yuma Proving Grounds:Yuma, AZ	21.093	1.675	Jan 2012	0.650	Feb 2013	3.467	Oct 2013	-		3.467	0.000	26.885	26.885
Test Instrumentation and Analysis	MIPR	Army Research Labs:Adelphi, MD	3.683	0.252	Feb 2012	-		0.100	Nov 2013	-		0.100	0.000	4.035	4.035
Telemetry Support	SS/FFP	Physical Science Laboratories	2.946	0.200	Sep 2012	-		-		-		-	0.000	3.146	3.146

PE 0604814A: *Artillery Munitions - EMD* Army

UNCLASSIFIED
Page 9 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

R-1 ITEM NOMENCLATURE

**PROJECT** 

2040: Research, Development, Test & Evaluation, Army

BA 5: System Development & Demonstration (SDD)

APPROPRIATION/BUDGET ACTIVITY

PE 0604814A: Artillery Munitions - EMD

708: XM982 PROJECTILE

DATE: April 2013

Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		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 Contrac
		(PSL):Las Cruces, NM													
Telemetry Support	MIPR	ARDEC:Picatinny, NJ	17.711	-		-		0.100	Oct 2013	-		0.100	0.000	17.811	17.81
Telemetry Cryptographic Support & Anti-Jam Support	MIPR	Ft. Huachuca:AZ	0.743	0.079	Feb 2012	-		0.100	Oct 2013	-		0.100	0.000	0.922	0.922
Target Replacement, Definition, Maintenance and Repair and Threat Assessment	MIPR	Target Management Office:Huntsville, AL	1.486	0.072	Jun 2012	-		-		-		-	0.000	1.558	1.558
Operational Test Support & AEC	MIPR	ATEC:Alexandria, VA	9.113	0.344	Dec 2011	0.100	Dec 2012	0.100	Oct 2013	-		0.100	0.000	9.657	9.65
ARDEC Testing	MIPR	ARDEC:Picatinny, NJ	2.608	0.206	Jun 2012	-		0.122	Nov 2013	-		0.122	0.000	2.936	2.930
TECOM Test Range	MIPR	White Sands Missile Range:NM	12.432	1.163	May 2012	0.246	Dec 2012	-		-		-	0.000	13.841	13.84
Operational Test Support	MIPR	Ft. Sill:OK	3.244	-		0.050	Dec 2012	1.300	Oct 2013	-		1.300	0.000	4.594	4.594
Test Gun Equipment	MIPR	Watervliet Arsenal:NY	3.972	-		-		-		-		-	0.000	3.972	3.97
Test Hardware	SS/CPFF	SAVIT:Parsippany, NJ	0.450	-		-		-		-		-	0.000	0.450	0.450
Live Fire Test and Evaluation	MIPR	ARL:Aberdeen, MD	0.697	-		-		-		-		-	0.000	0.697	0.69
Tri-Service Software Assessment	MIPR	OSD:Washington, DC	0.061	-		-		-		-		-	0.000	0.061	0.06
SS-SFM Testing	MIPR	Yuma Proving Grounds:Yuma, AZ	2.300	-		-		-		-		-	0.000	2.300	2.300
	•	Subtotal	82.539	3.991		1.046		5.289		0.000		5.289	0.000	92.865	92.86

**UNCLASSIFIED** Page 10 of 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army	DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604814A: Artillery Munitions - EMD	708: XM98	2 PROJECTILE
BA 5: System Development & Demonstration (SDD)			

	All Prior Years	FY 2	012 FY 2	FY 2		2014 FY 2014 CO Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	855.506	45.821	4.346	8.209	0.000	8.209	0.000	913.882	913.882

Remarks

PE 0604814A: Artillery Munitions - EMD Army

Page 11 of 13

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604814A: Artillery Munitions - EMD

R-1 ITEM NOMENCLATURE

PROJECT

708: XM982 PROJECTILE

	FY 2012				FY 2013					FY 2014			FY 2015				FY 2016						FY 2017					FY	20	18	
	1	2	3	4	1	2	2	3	4	1	2	3	4	1	2	3	3	4	1	2	3	4	1		2	3	4	1	2	3	3
Increment Ib Milestone C				•												·															
Increment Ib Production Award																															
Increment Ib Production Deliveries																															
Increment Ib First Article Testing																															
Execution of DT/OT Supporting MS-C																															
Final Safety/Reliability Tests Supporting Material Release																															
Preparation & Execution of Increment Ib IOT&E																															
Increment Ib IOC																															

Exhibit R-4A, RDT&E Schedule Details: 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 0604814A: Artillery Munitions - EMD
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## Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
Increment Ib Milestone C	1	2013	1	2013
Increment Ib Production Award	1	2013	1	2013
Increment Ib Production Deliveries	1	2014	1	2016
Increment Ib First Article Testing	1	2014	1	2014
Execution of DT/OT Supporting MS-C	2	2012	1	2013
Final Safety/Reliability Tests Supporting Material Release	4	2012	4	2013
Preparation & Execution of Increment Ib IOT&E	4	2013	2	2014
Increment Ib IOC	2	2014	2	2014